HCD-V4800

SERVICE MANUAL

E Model
Chinese Model

HCD-4800 is the tuner, deck, Video CD and amplifier section in LBT-V4800/V4800R.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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CD Section	Model Name Using Similar Mechanism	HCD-V3500
	CD Mechanism Type	CDM37L-5BD21AL
	Base Unit Name	BU-5BD21AL
	Optical Pick-up Name	KSS-213D/Q-NP
Tape deck Section	Model Name Using Similar Mechanism	HCD-V808
	Tape Transport Mechanism Type	TCM-220WR2

SPECIFICATIONS

Amplifier section

Continuous RMS power output
80 + 80 watts
(5 ohms at 1 kHz, 10% THD)

Peak music power output
1,200 watts

Inputs
PHONO IN (phono jacks):
sensitivity 3 mV, impedance 47 kilohms
VIDEO (AUDIO) IN (phono jacks):
sensitivity 250 mV, impedance 47 kilohms
MIX MIC (phone jack): sensitivity 1 mV, impedance 10 kilohms

Outputs
VIDEO (AUDIO) OUT (phono jacks):
voltage 250 mV, impedance 1 kilohms
VIDEO (phono jack): max. output level 1 Vp-p, unbalanced, Sync negative, load impedance 75 ohms
S-VIDEO (4-pin/mini-DIN jack):
Y: 1 Vp-p, unbalanced, Sync negative
C: 0.286 Vp-p, load impedance 75 ohms
PHONES (stereo phone jack):
accepts headphones of 8 ohms or more
SPEAKER: accepts impedance of 5 to 16 ohms

Video CD / CD player section

System: Compact disc digital audio and video system
Laser: Semiconductor laser (λ = 780 nm)
Emission duration: continuous
Laser output: Max. 44.6 μW*
* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Wavelength: 780 – 790 nm
Frequency response: 2 Hz – 20 kHz (±0.5 dB)
Signal-to-noise ratio: More than 90 dB
Dynamic range: More than 90 dB
Video
Color system format: NTSC, PAL

Tape player section

Recording system: 4-track 2-channel stereo
Frequency response (DOLBY NR OFF)
60 – 13,000 Hz (±3 dB), using a Sony TYPE I cassette
60 – 14,000 Hz (±3 dB), using a Sony TYPE II cassette

– Continued on next page –

MINI Hi-Fi COMPONENT SYSTEM

MICROFILM

SONY®

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz (50 kHz step)
Antenna	FM wire antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	531 – 1,602 kHz (with the tuning interval set at 9 kHz) 530 – 1,710 kHz (with the tuning interval set at 10 kHz)
Antenna	AM loop antenna, External antenna terminals
Intermediate frequency	450 kHz

General

Power requirements	
Malaysia, Thai models:	220 – 240 V AC, 50/60 Hz
Other models:	110 – 120 V or 220 – 240 V AC, 50/60 Hz adjustable with voltage selector
Power consumption	170 watts
Dimensions (w/h/d)	Approx. 355 × 425 × 435 mm incl. projecting parts and controls
Mass	Approx. 12.0 kg

Design and specifications are subject to change without notice.

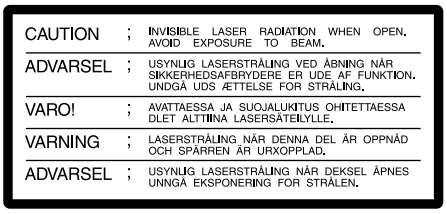
CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

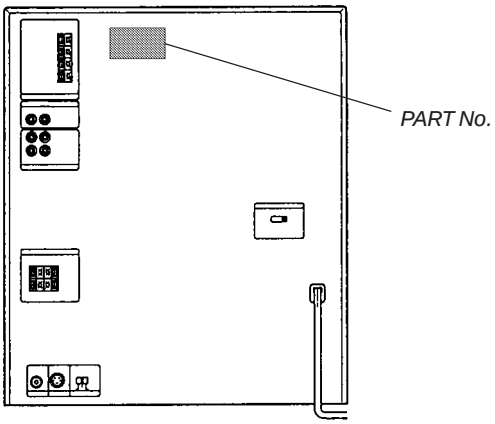
Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.


CAUTION ; INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
ADVARSEL ; USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDS ÆTTELSE FOR STRÅLING.
VARO! ; AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA LASERSÄTEILYLLE.
VARNING ; LASERSTRÅLING NÄR DENNA DEL ÄR OPPNAD OCH SPÄRREN ÄR URXOPPLAD.
ADVARSEL ; USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN.

MODEL IDENTIFICATION

– BACK PANEL –



MODEL	PART NO.
Singapore	4-992-219-0☐
Malaysia, Thai	4-992-219-1☐
Chinese	4-992-219-2☐
Indonesia	4-992-219-3☐

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

TABLE OF CONTENTS

1. GENERAL 4

2. DISASSEMBLY 7

3. TEST MODE 15

4. MECHANICAL ADJUSTMENTS 18

5. ELECTRICAL ADJUSTMENTS

DECK Section 18
CD Section 21
VIDEO Section 22

6. DIAGRAMS

6-1. IC Pin Function Description 23
6-2. Printed Wiring Board —BD Section— 33
6-3. Schematic Diagram —BD Section— 35
6-4. Printed Wiring Boards —CD MOTOR Section— 37
6-5. Schematic Diagram —CD MOTOR Section— 39
6-6. Printed Wiring Boards —VIDEO Section— 42
6-7. Schematic Diagram —VIDEO Section— 45
6-8. Schematic Diagram —DECK Section— 51
6-9. Printed Wiring Boards —DECK Section— 55
6-10. Printed Wiring Boards —MAIN/DECK/POWER SUPPLY Section— 58
6-11. Schematic Diagram —MAIN/POWER SUPPLY Section— 61
6-12. Schematic Diagram —PANEL Section— 68
6-13. Printed Wiring Boards —PANEL Section— 71
6-14. Schematic Diagram —POWER AMP/KEY CONTROL Section— 74
6-15. Printed Wiring Boards —POWER AMP/KEY CONTROL Section— 77

7. EXPLODED VIEWS 88

8. ELECTRICAL PARTS LIST 97

SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveforms is output three times.

Notes on chip component replacement

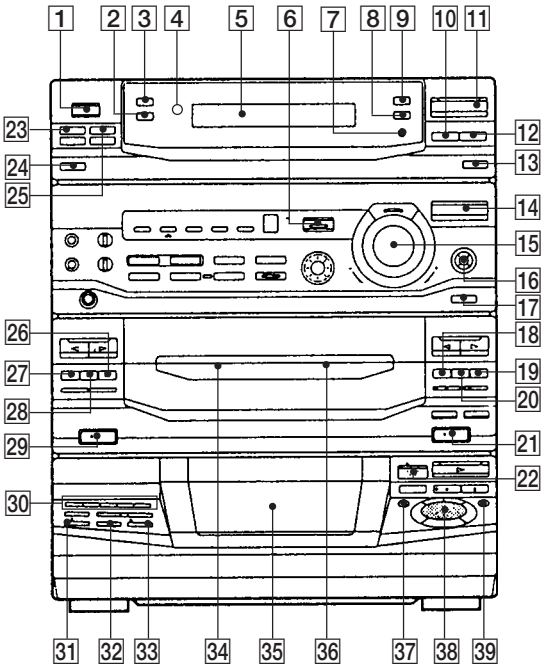
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

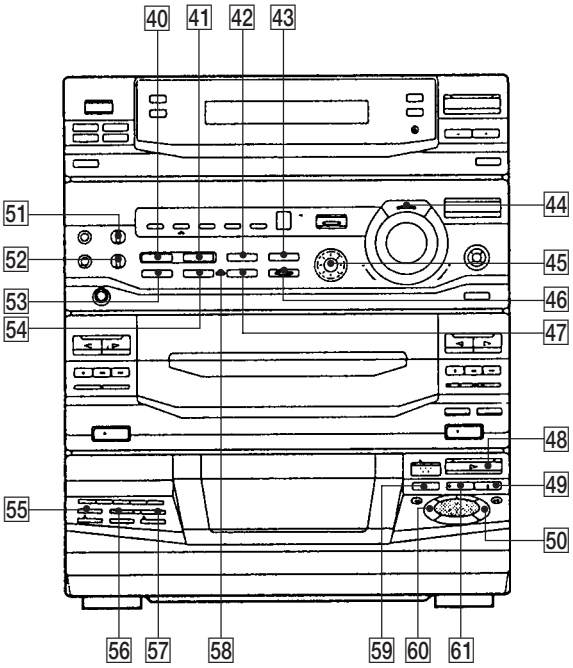
- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SECTION 1
GENERAL

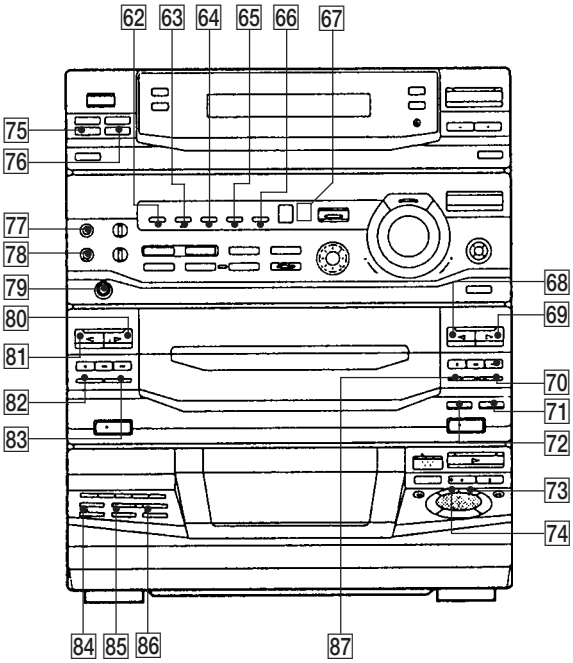
LOCATION OF CONTROLS
— Front Panel —



1 POWER button
2 SPECTRUM ANALYZER button
3 DISPLAY/DEMO button
4 Remote control receiver
5 Fluorescent indicator tube
6 EFFECT button and indicator
7 ENTER/NEXT button and indicator
8 TUNER MEMORY button
9 TUNING MODE button
10 TUNING – button
11 TUNER/BAND button and indicator
12 TUNING + button
13 STEREO/MONO button
14 FUNCTION button
15 VOLUME control knob
16 SUPER WOOFER button and indicator
17 SUPER W MODE button
18 ■ button (deck B side)
19 ▶▶ button (deck B side)
20 ◀◀ button (deck B side)
21 ⏏ EJECT button (deck B side)
22 ⏏ OPEN button
23 ◴ /CLOCK SET button
24 SLEEP button
25 REC button
26 ▶▶ button (deck A side)
27 ■ button (deck A side)
28 ◀◀ button (deck A side)
29 ⏏ EJECT button (deck A side)
30 DIRECT PLAY DISC 1 to DISC 5 buttons
31 ↩ RETURN button
32 PREV button
33 NEXT button
34 Cassette holder (deck A side)
35 CD disc tray
36 Cassette holder (deck B side)
37 ◀◀ button
38 ⏮◀◀ AMS ▶▶⏭ jog dial knob
39 ▶▶ button

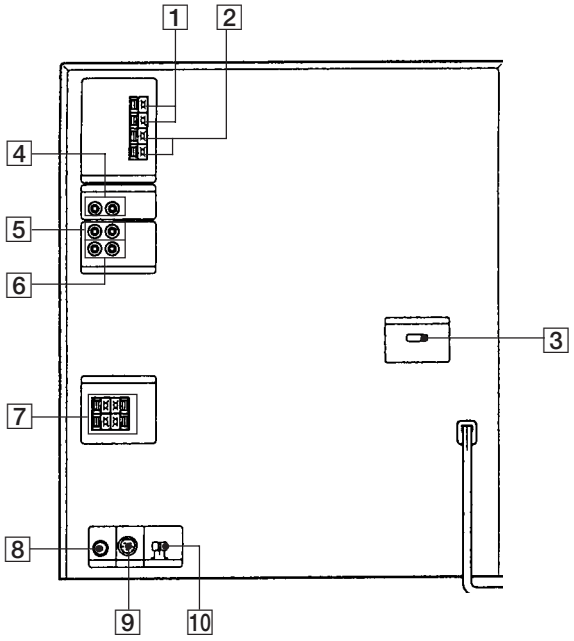


40 SOUND CONTROL WAVE button
41 SOUND CONTROL SURROUND button
42 P FILE MEMORY button
43 GEQ CONTROL button
44 GROOVE button and indicator
45 GEQ cursor control
46 ENTER button and indicator
47 KEY CONTROL ♯ button
48 ▷ button and indicator
49 ■ button
50 REPEAT button
51 MIC LEVEL control knob
52 ECHO LEVEL control knob
53 KARAOKE PON/MPX button
54 KEY CONTROL ♭ button
55 CD NON-STOP button and indicator
56 DJ MIX CD LOOP button
57 DJ MIX CD FLASH button
58 KEY CONTROL indicator
59 DISC SKIP button
60 EDIT button
61 ❚❚ button and indicator



62 FILE 1/MOVIE/ROCK indicator
63 FILE 2/GAME/POP indicator
64 FILE 3/NIGHT/JAZZ indicator
65 FILE 4/PARTY/DANCE indicator
66 FILE 5/RELAX/SALSA indicator
67 P FILE/MENU 2/MENU 1 indicator
68 ◁ button and indicator (deck B side)
69 ▷ button and indicator (deck B side)
70 ● REC button and indicator
71 CD SYNC button
72 H SPEED DUB button
73 PLAY MODE button
74 1/ALL DISCS button
75 DAILY 1 button
76 DAILY 2 button
77 MIC 1 jack
78 MIC 2 jack
79 PHONES jack
80 ▷ button and indicator (deck A side)
81 ◁ button and indicator (deck A side)
82 DIRECTION button
83 DOLBY NR button
84 VCD indicator
85 PBC indicator
86 AUTO PBC indicator
87 ❚❚ PAUSE button and indicator

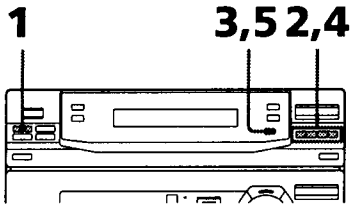
— Rear Panel —



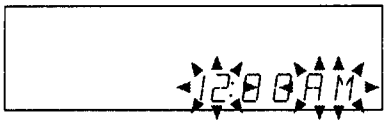
1 FM ANTENNA terminal
2 AM ANTENNA terminal
3 VOLTAGE SELECTOR (except Malaysia, Thai models)
4 PHONO IN pin jack
5 VIDEO (AUDIO) IN pin jack
6 VIDEO (AUDIO) OUT pin jack
7 SPEAKER output terminal
8 VIDEO OUT pin jack
9 S VIDEO OUT connector
10 SYSTEM SELECT switch (NTSC/AUTO/PAL select)

Step 2: Setting the time

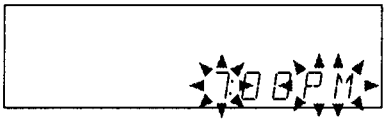
You must set the time before using the timer functions.



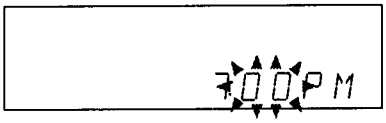
1 Press ⏲/CLOCK SET.
The hour indication flashes.



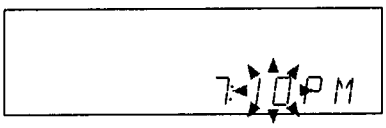
2 Press TUNING +/– to set the hour.
The clock uses the 12-hour system.



3 Press ENTER/NEXT.
The minutes indication flashes.



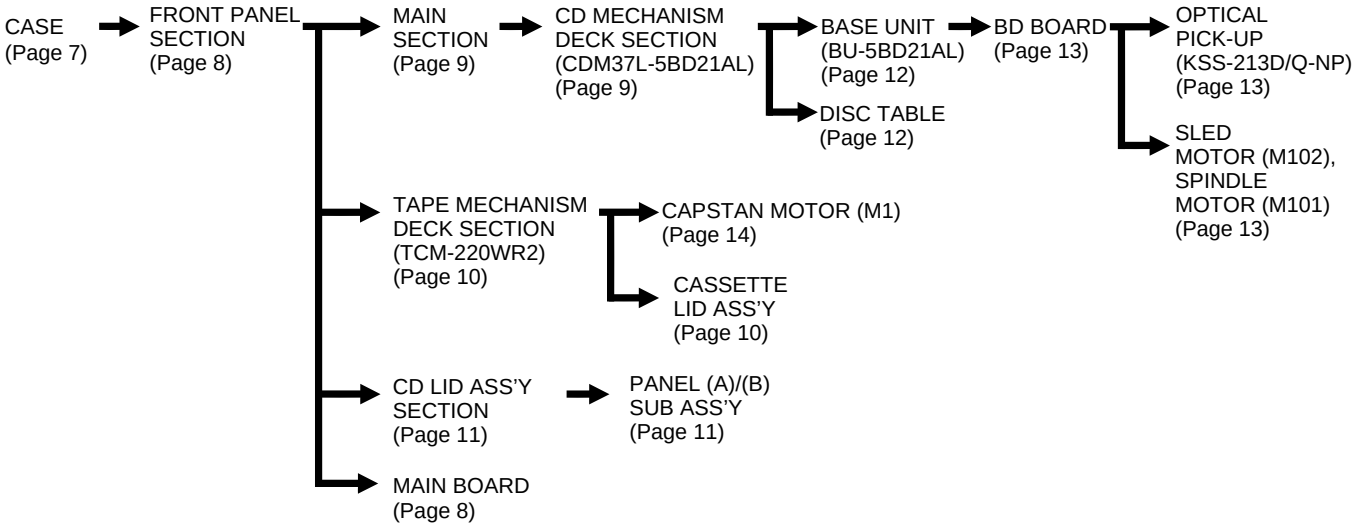
4 Press TUNING +/– to set the minutes.



5 Press ENTER/NEXT.
The clock starts.

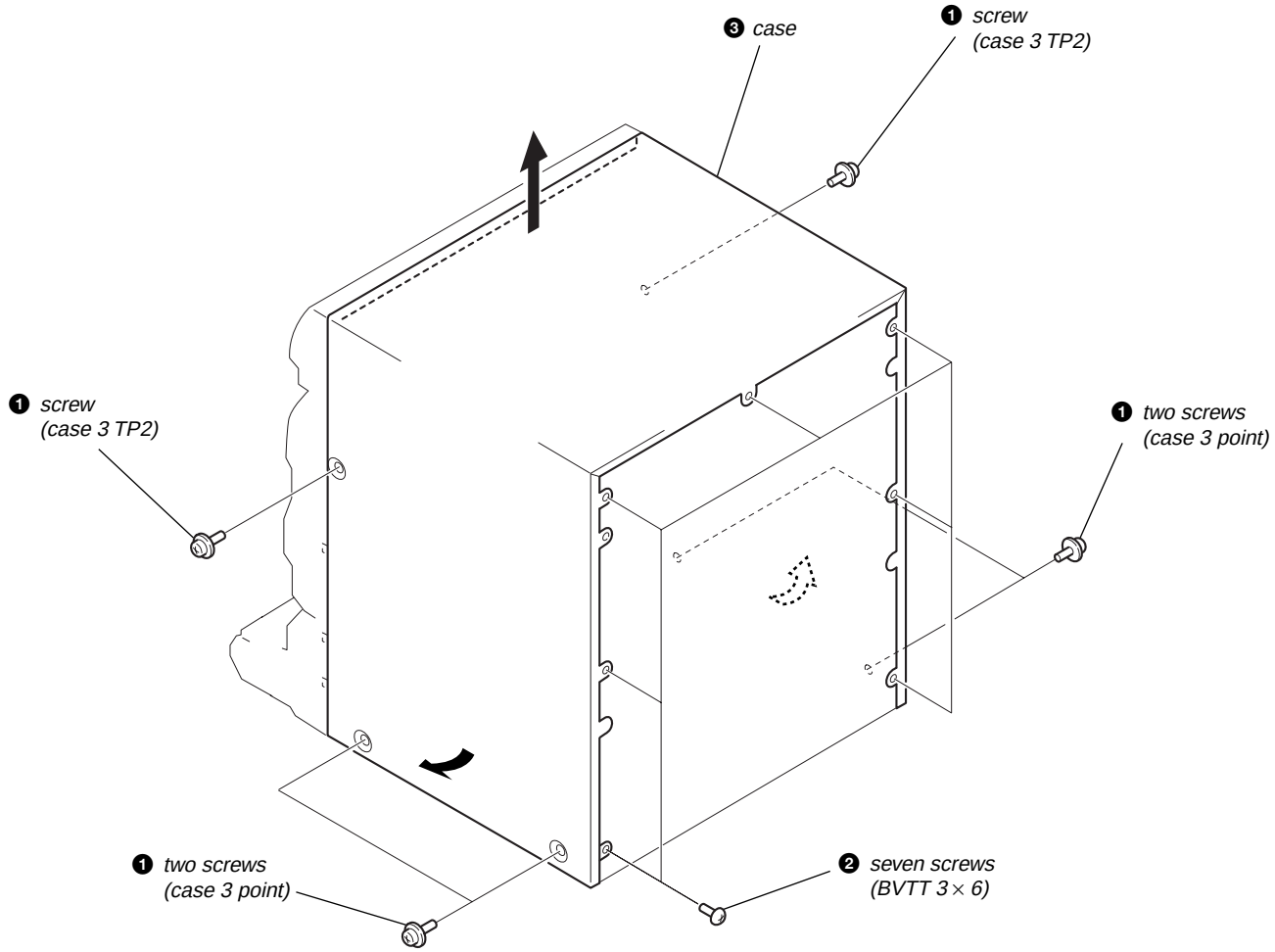
SECTION 2
DISASSEMBLY

• This set can be disassembled in the order shown below.

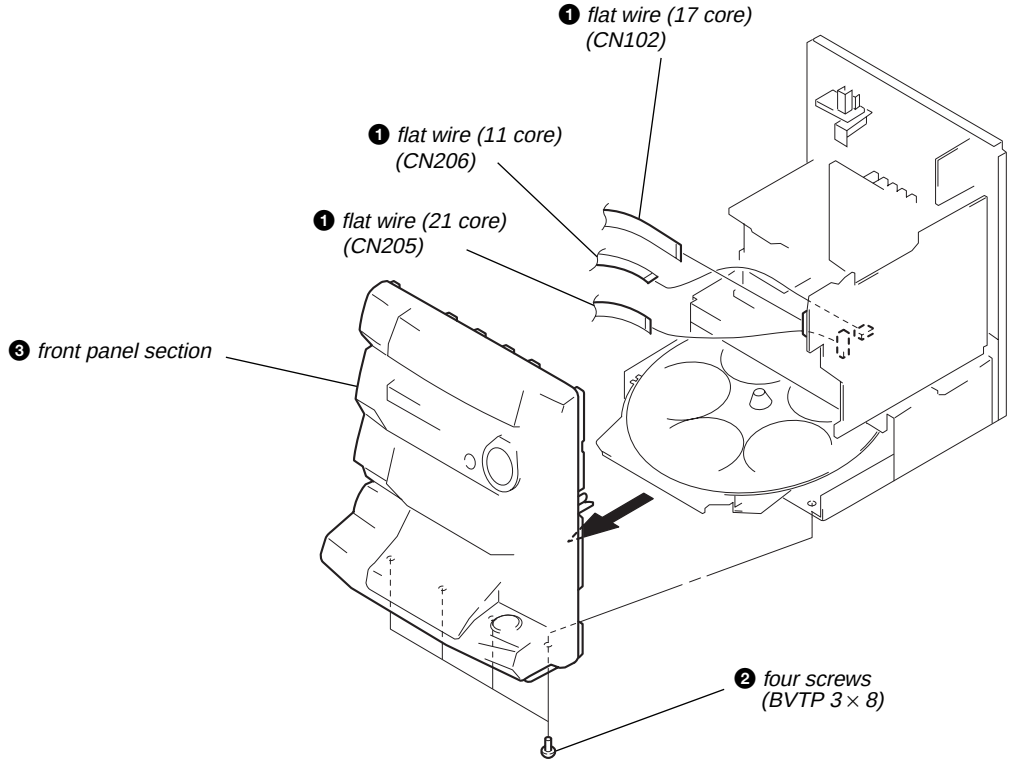


Note: Follow the disassembly procedure in the numerical order given.

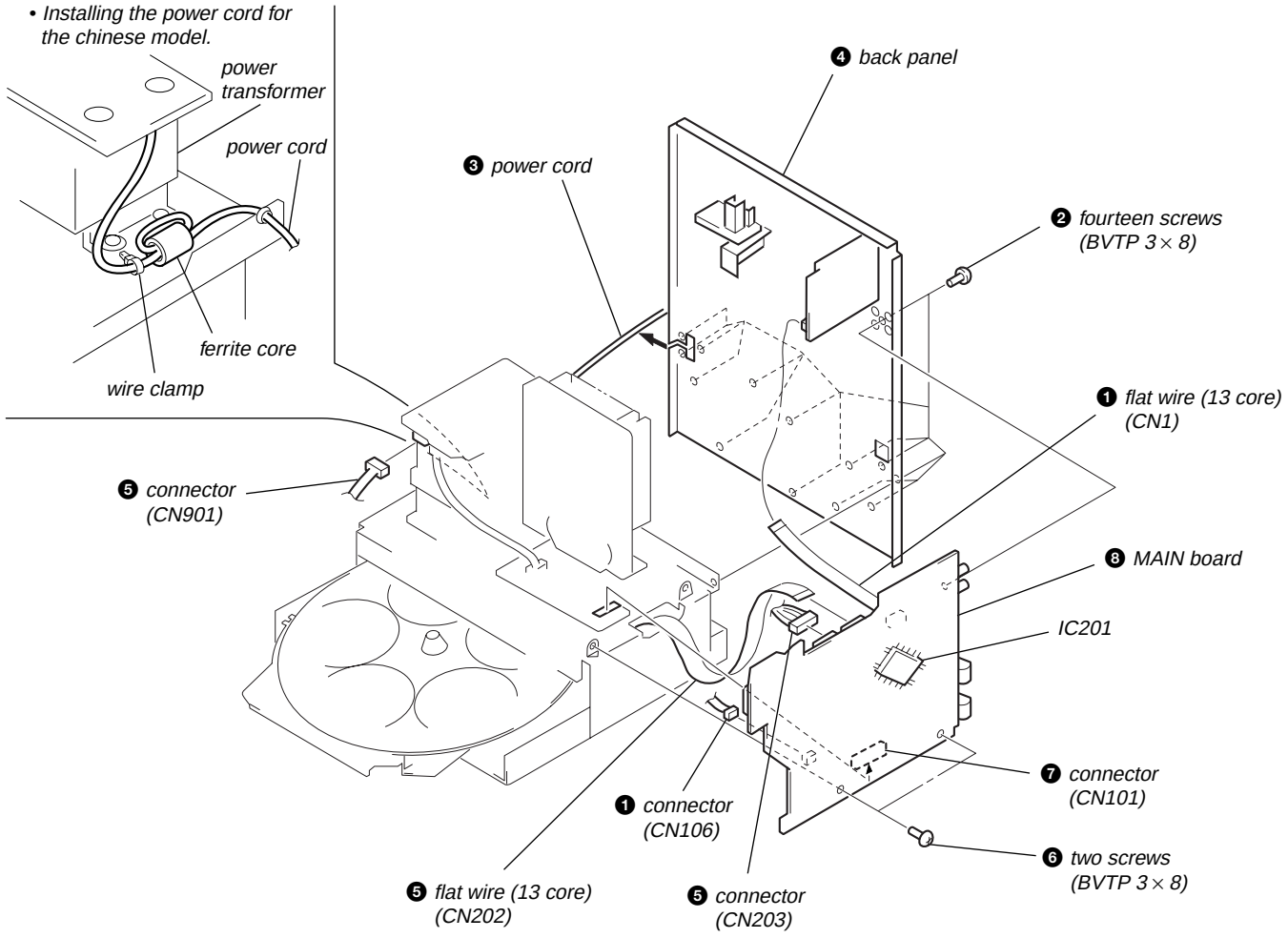
CASE



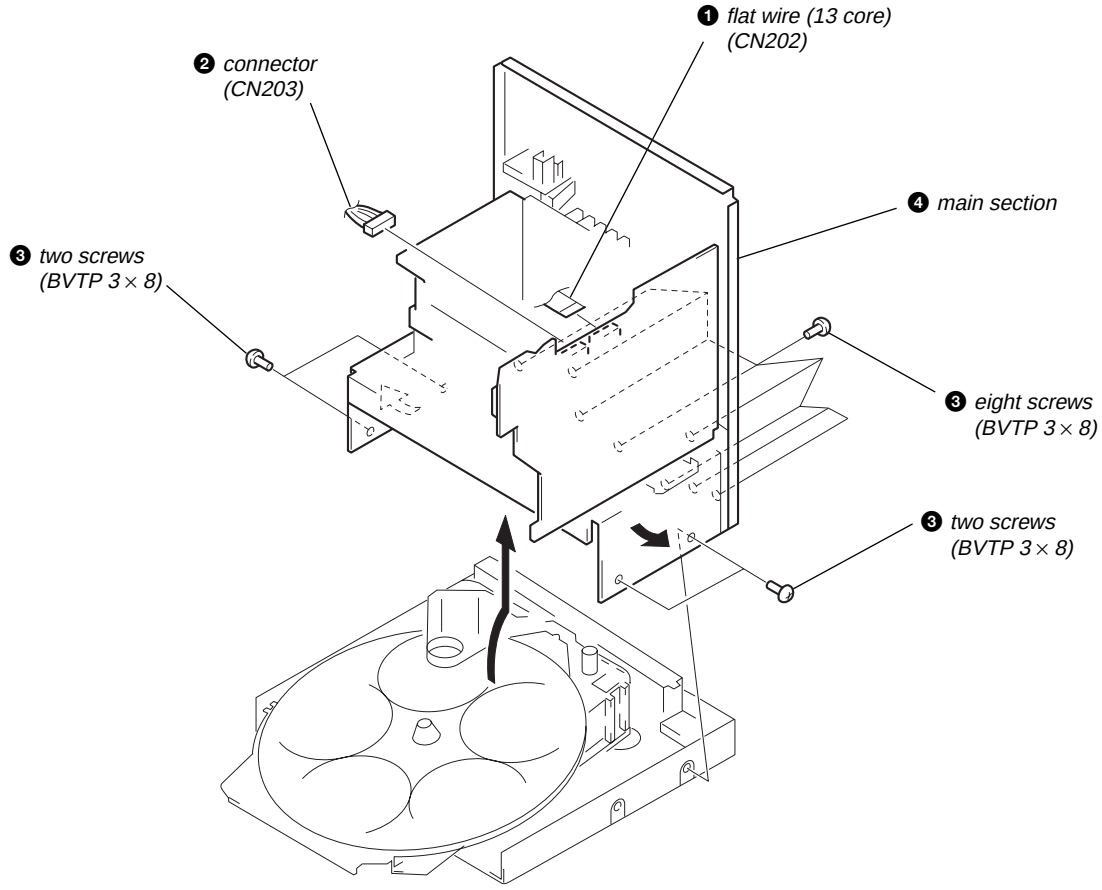
FRONT PANEL SECTION



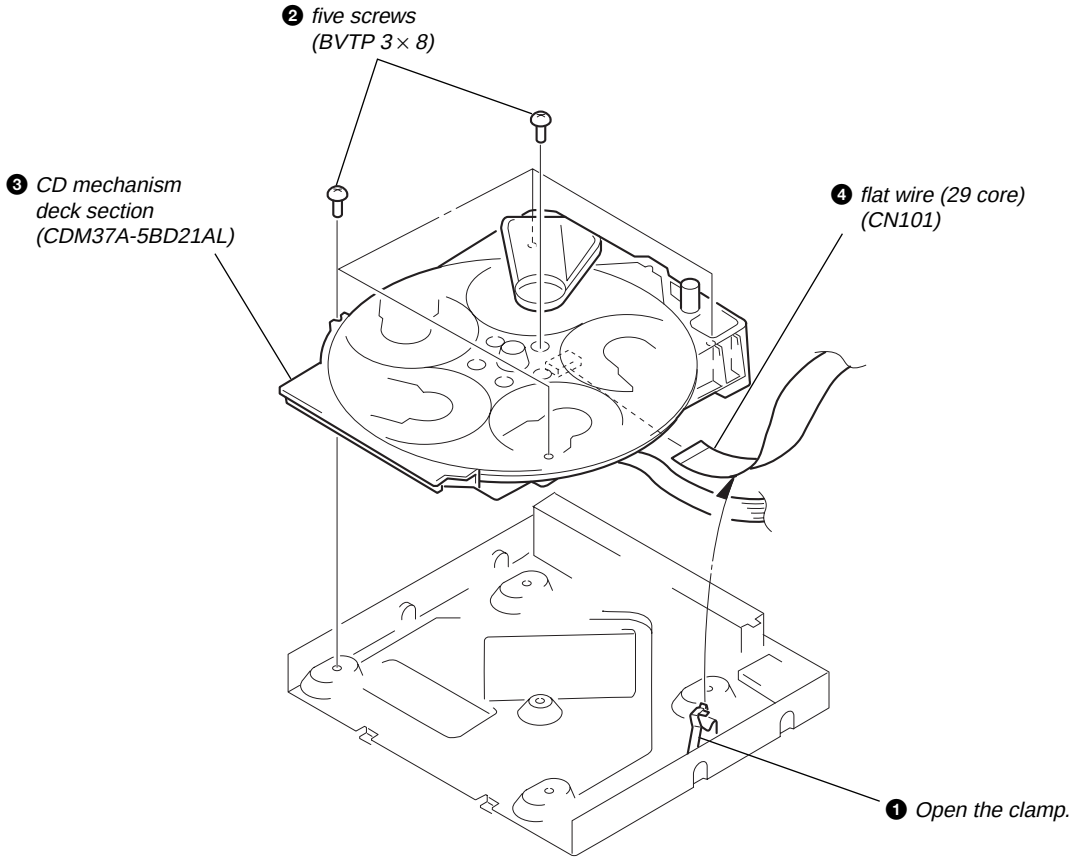
MAIN BOARD



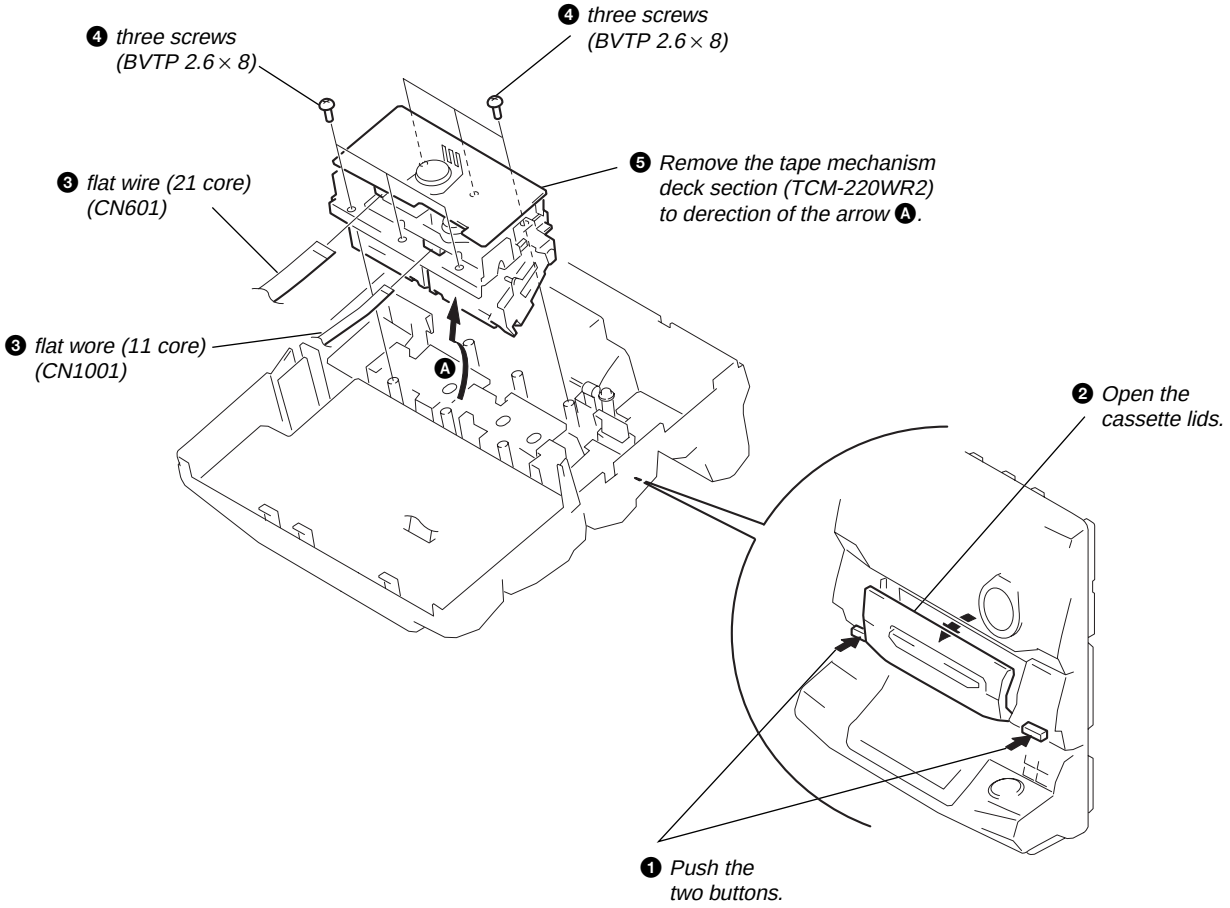
MAIN SECTION



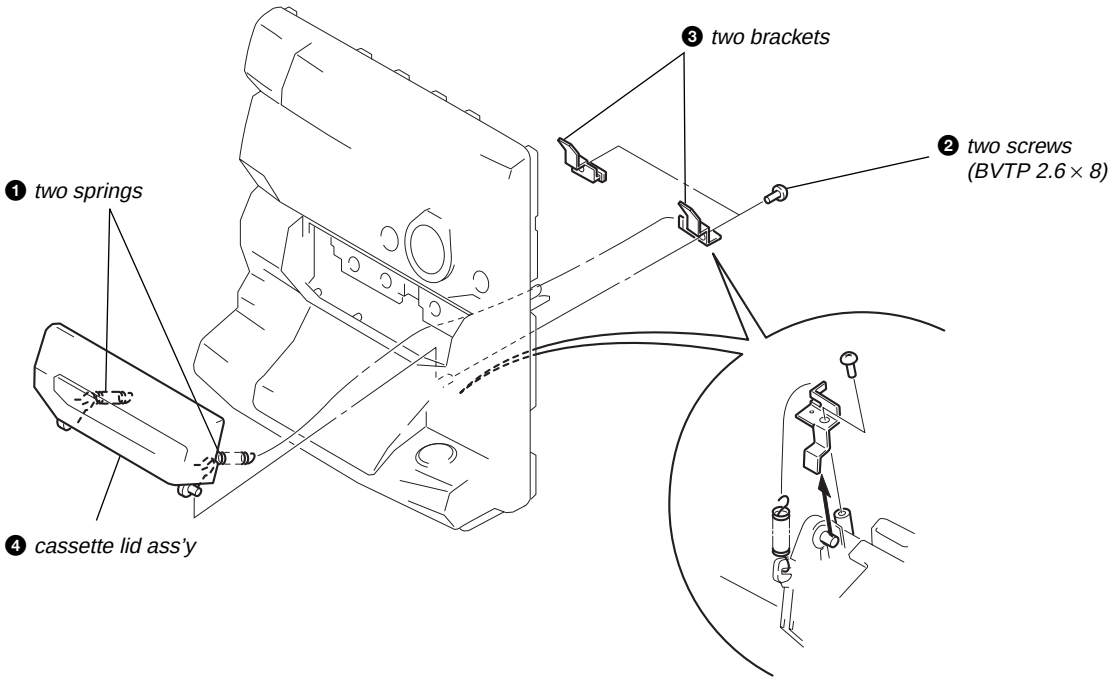
CD MECHANISM DECK SECTION (CDM37L-5BD21AL)



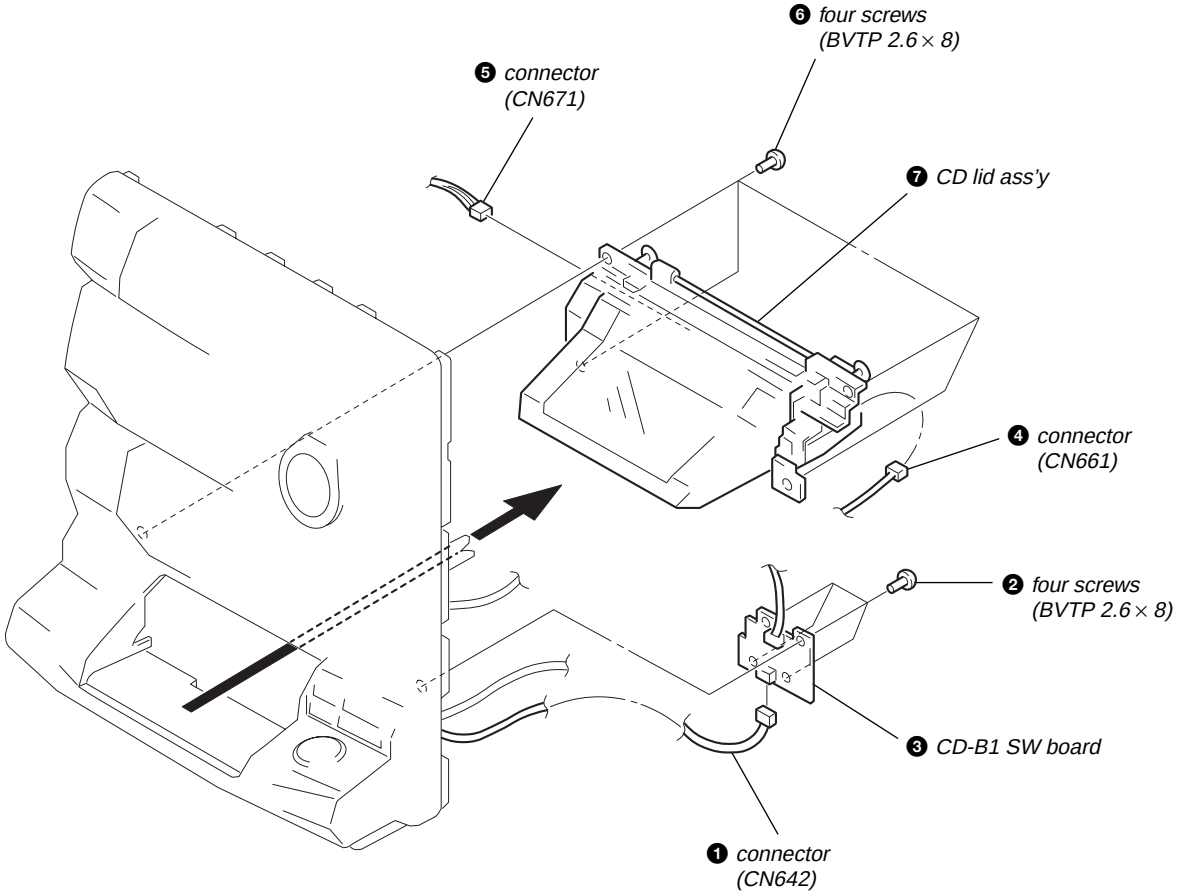
TAPE MECHANSM DECK SECTION (TCM-220WR2)


❹ three screws (BVTP 2.6 × 8)
❹ three screws (BVTP 2.6 × 8)
❸ flat wire (21 core) (CN601)
❺ Remove the tape mechanism deck section (TCM-220WR2) to derection of the arrow Ⓐ.
❸ flat wore (11 core) (CN1001)
Ⓐ
❷ Open the cassette lids.
❶ Push the two buttons.

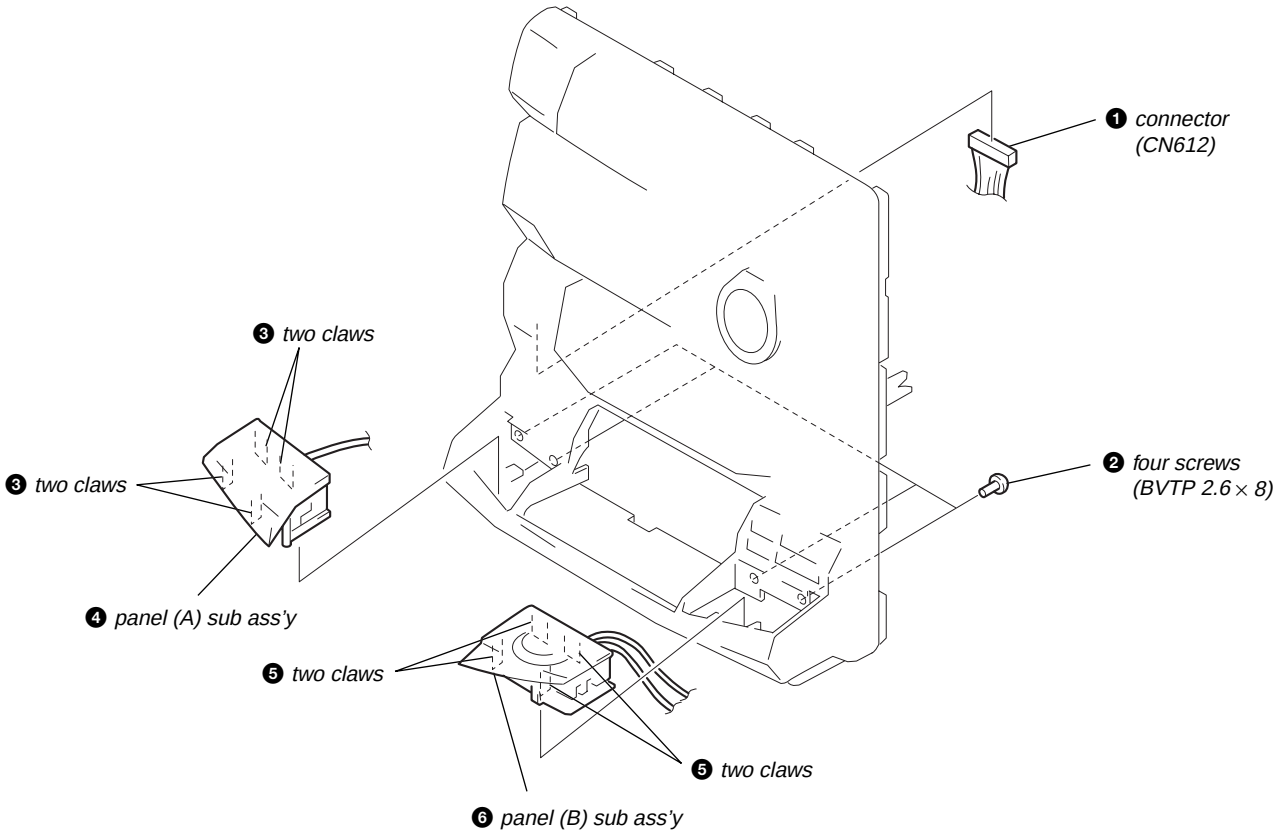
CASSETTE LID ASS'Y



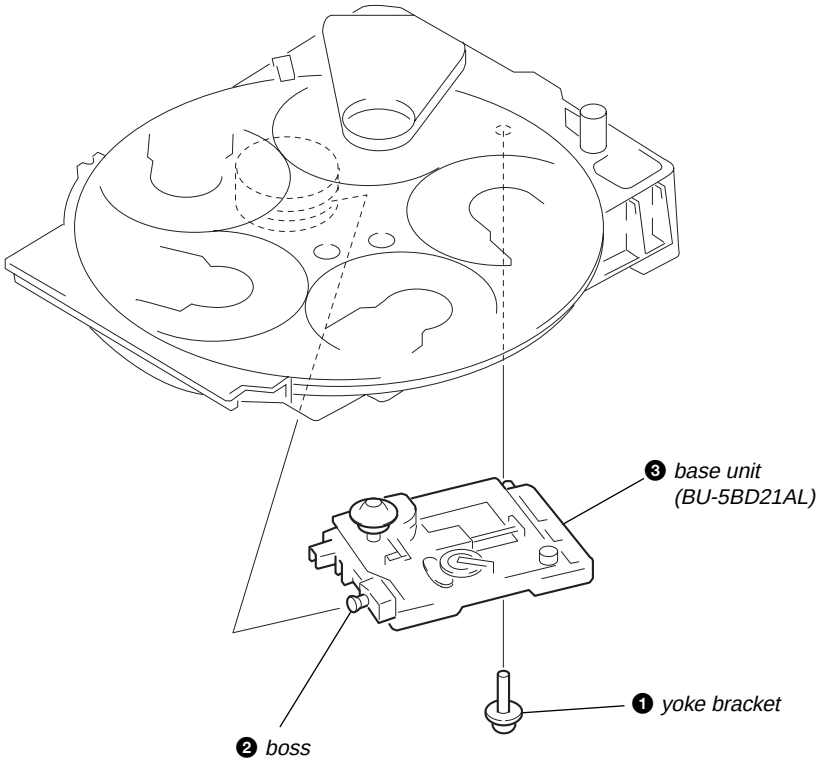
CD LID ASS'Y SECTION



PANEL (A) / (B) SUB ASS'Y

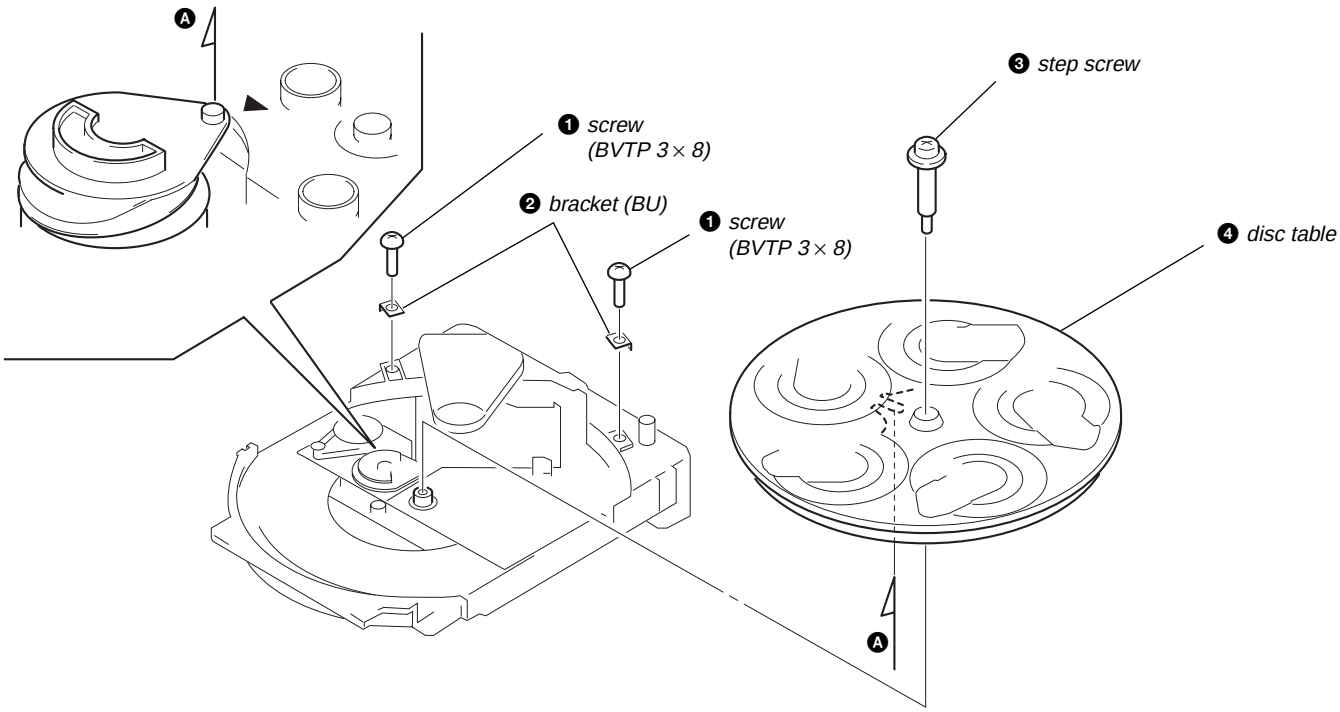


BASE UNIT (BU-5BD21AL)

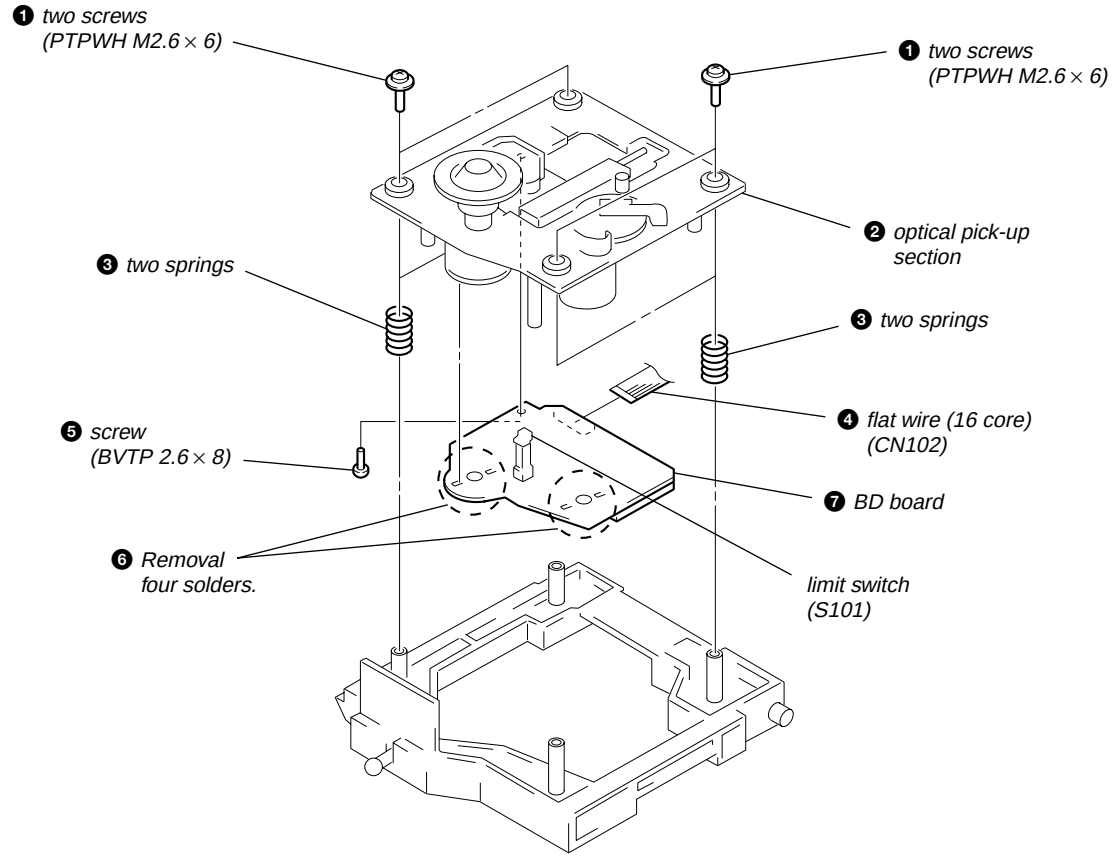


DISC TABLE

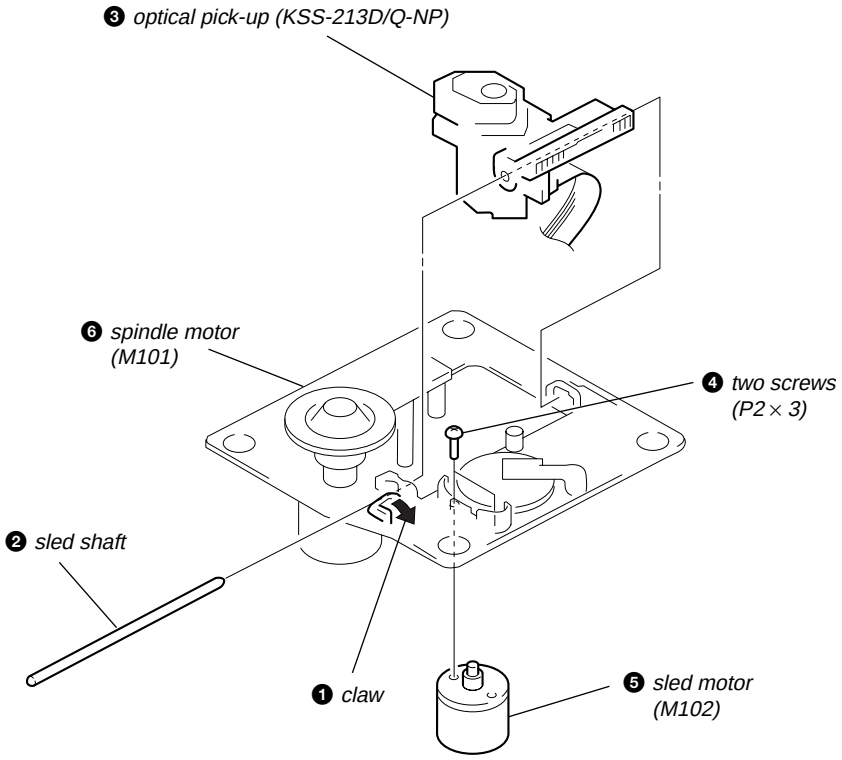
Note:
When the disc table is installed, adjust the positions of roller cam amd mark ► as shown in the figure, then set to the groove of disc table.



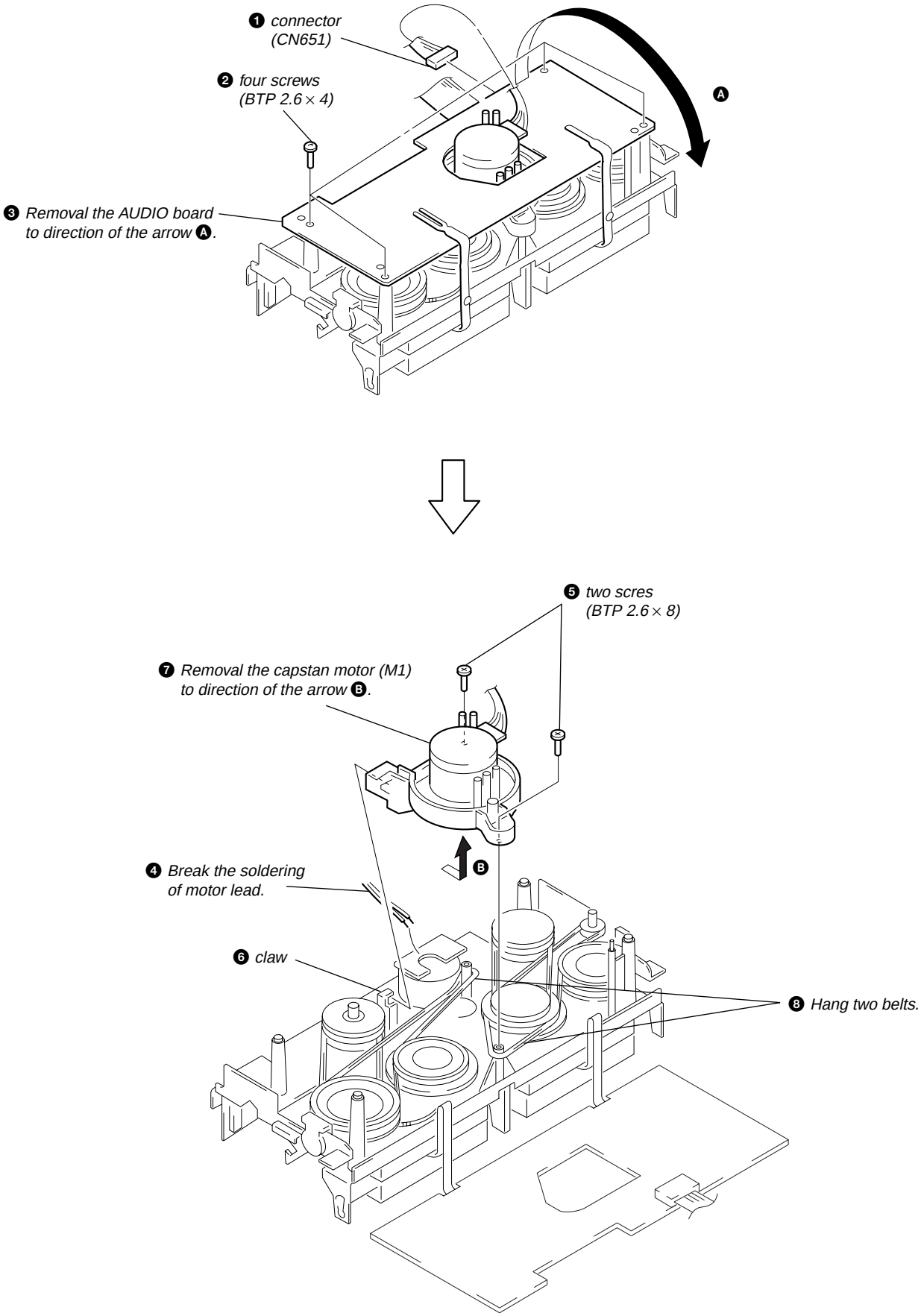
BD BOARD



OPTICAL PICK-UP (KSS-213D/Q-NP), SLED MOTOR (M102), SPINDLE MOTOR (M101)



CAPSTAN MOTOR (M1)


❶ connector (CN651)
❷ four screws (BTP 2.6 × 4)
❸ Removal the AUDIO board to direction of the arrow Ⓐ.
Ⓐ
❺ two scres (BTP 2.6 × 8)
❼ Removal the capstan motor (M1) to direction of the arrow Ⓑ.
Ⓑ
❹ Break the soldering of motor lead.
❻ claw
❽ Hang two belts.

SECTION 3
TEST MODE

MC COLD RESET

• The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons [GROOVE] , [ENTER/NEXT] , and [DISC 1] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

CD DELIVERY MODE

• This mode moves the pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press [POWER] button to turn the set ON.
2. Press [PLAY MODE] button and [POWER] button simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

MC HOT RESET

• This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons [GROOVE] , [ENTER/NEXT] , and [DISC 2] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

SLED SERVO MODE

• This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pick-up.

Procedure:

1. Select the function "CD".
2. Press three buttons [GROOVE] , [ENTER/NEXT] , and [CD FLASH] simultaneously.
3. The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
4. With the CD in stop status, press [▶▶] button in CD section to move the pick-up to outside track, or [◀◀] button to inside track.
5. To exit from this mode, perform as follows:
   1) Move the pick-up to the most inside track.
   2) Press three buttons in the same manner as step 2.

Note:

• Always move the pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
• Do not run the sled motor excessively, otherwise the gear can be chipped.

CHANGE-OVER OF AM TUNER STEP BETWEEN 9 kHz AND 10 kHz

• A step of AM channels can be changed over between 9 kHz and 10 kHz.

Procedure:

1. Press [POWER] button to turn the set ON.
2. Select the function "TUNER", and press [TUNER/BAND] button to select the BAND "AM".
3. Press [POWER] button to turn the set OFF.
4. Press [ENTER/NEXT] and [POWER] buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9 k STEP" or "AM 10 k STEP", and thus the channel step is changed over.
   Be sure not to change with carelessness.

LED AND FLUORESCENT INDICATOR TUBE ALL LIT, KEY CHECK MODE

Procedure:

1. Press three buttons [GROOVE] , [ENTER/NEXT] , and [DISC 3] simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
   Press [DIRECTION] button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays "K 1 J0 V0". Each time a button is pressed, "K"value increases. However, once a button is pressed, it is no longer taken into account.
   "J" value increases like 1, 2, 3 ... if rotating JOG dial knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "–" direction.
   "V" value increases like 1, 2, 3 ... if rotating [VOLUME] knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "–" direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

SELF-DIAGNOSIS

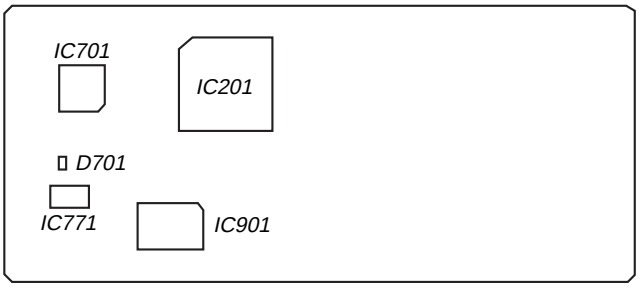
This model has the self-diagnosis function for the video and audio decoder sections.

Immediately after the power on, the self-diagnosis function searches each operation of IC's around the mechanism controller (IC701).

The LED (D701) on the VIDEO board indicates their results.

LED (D701) INDICATION	SYMPTOM
Light	No error
1 time blinking (Repeatedly)	External RAM (S-RAM) error (IC751)
2 times blinking (Repeatedly)	Video decoder section error (IC201)
3 times blinking (Repeatedly)	Video RAM (D-RAM) error (IC251)
4 times blinking (Repeatedly)	Audio decoder section error (IC201)

[VIDEO BOARD] (SIDE-A)



AGING MODE

This mode can be used for operation check of CD section and tape deck section.

- If an error occurred:
  The aging operation stops.
- If no error occurs:
  The aging operation continues repeatedly.

1. Aging Mode in CD Section

1-1. Operating Method of Aging Mode

1. Set discs in DISC 1 and DISC 3 trays.
2. Select the function "CD".
3. Press three buttons [GROOVE], [ENTER/NEXT], and [DISC 5] simultaneously.
4. The aging mode is activated, if a roulette mark on the fluorescent indicator tube is blinking.
5. In the aging mode, the aging is executed in a sequence given in "1-2. Operation during Aging Mode".
   The aging continues unless an alarm occurred.
6. To exit from the aging mode, press [POWER] button to turn the set OFF.

- If a button other than buttons In CD section is pressed during aging, the aging in the CD section is finished.
- To execute aging to the tape deck section successively, press [▷] button in the deck A.
  "AGING" is displayed on the fluorescent indicator tube. (For the aging in tape deck, see "2. Aging Mode in Tape Deck Section".

1-2. Operation during aging Mode

In the aging mode, the program is executed in the following sequence.

1. The disc tray turns to select a disc. (For a disc selection sequence, see Section 1-3.)
2. TOC of disc is read.
3. The pick-up accesses to the last track.
4. Steps 1 through 3 are repeated.

1-3. Disc Selection Sequence

- During the aging mode, discs are selected in the following sequence:

Disc 1 → Disc 3
↑ ↓
Disc 3 ← Disc 1

2. Aging Mode in Tape Deck Section

2-1. Operating Method of Aging Mode

1. Load a commercially available 10-minute tape into the decks A and B respectively.
   (If a 10-minute tape is not available, another tape may be used but a cycle time will be longer.)
2. Select the function "TAPE".
3. Rewind tapes in advance by pressing [◀◀] button respectively on decks A and B.
4. Press three buttons [GROOVE], [ENTER/NEXT], and [DISC 5] simultaneously.
5. Press [▷] button on deck A. (This button triggers the aging mode.)
6. The aging mode is activated if "AGING A" is displayed on the fluorescent indicator tube.
7. In the aging mode, the aging is executed in a sequence given in "2-2. Operation during Aging Mode".
   The aging continues unless an alarm occurred.
8. To exit from the aging mode, press [POWER] button to turn the set OFF.

2-2. Operation during Aging Mode

In the aging mode, the program is executed in the following sequence.

1. A tape on FWD side is played for one minute.
2. PAUSE STOP is made.
3. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed. In this case, [▷] LED does not light up.)
4. FF is executed up to the end of tape.
5. A tape is reversed, and the tape on REV side is played for one minute.
6. PAUSE STOP is made.
7. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed. In this case, [◁] LED does not light up.)
8. FF is executed up to the end of tape.
9. Steps 1 through 8 are executed for the other deck.
10. Steps 1 through 9 are repeated unless an alarm occurred.

2-3. Deck Selection Sequence

- During the aging mode, decks are selected in the following sequence:

Deck A (FWD) → Deck A (REV)
↑ ↓
Deck B (REV) ← Deck B (FWD)

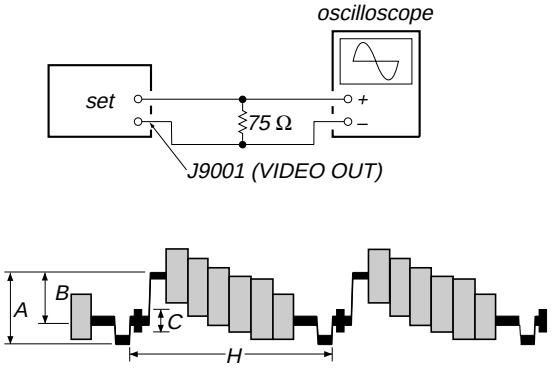
VIDEO CD COLOR BAR MODE

On this mode, the data of the color bar signal as a picture signal and the 1 kHz sine wave signal as a sound signal are output by the mechanism controller (IC701) for the video CD signal check. When measurement of the voltage and waveform on the VIDEO board, perform it in this mode.

For reference, the color bar signal can be observed at J9001 (VIDEO OUT) and the sound signal can be observed at J101 (VIDEO (AUDIO) OUT) using an oscilloscope.

Procedure:

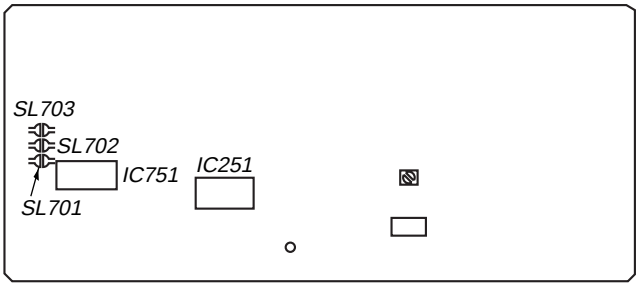
1. Turned power switch on.
2. Press the [FUNCTION] button to select the CD.
3. Connect the SL701 on the VIDEO board with solder.
4. After measuring, remove the soldering installed.



A = 0.9 to 1.1 Vp-p
B = 0.678 to 0.75 Vp-p
C = 0.214 to 0.328 Vp-p

Fig. 1 Video CD Color Bar Signal Output from J9001 (VIDEO OUT)

[VIDEO BOARD] (SIDE-B)



E-F BALANCE MODE

Refer to the SECTION 6 ELECTRICAL ADJUSTMENTS page 21.

Procedure:

1. Turned power switch on.
2. Press the [FUNCTION] button to select the CD.
3. Connect the SL701 and SL703 on the VIDEO board with solder.
4. Press the [▷] button in playback.
5. Every pressing the [REPEAT] button, the tracking servo and sledding servo are turned on or off.
6. When the servo is off, the counter on front panel will not be changed.
7. After measuring, remove the soldering installed.

SECTION 4
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
   record/playback head — pinch roller
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	36 to 61g•cm (0.50 – 0.84 oz•inch)
Forward Back Tension	CQ-102C	2 to 6g•cm (0.026 – 0.082 oz•inch)
Reverse	CQ-102RC	36 to 61g•cm (0.50 – 0.84 oz•inch)
Reverse Back Tension	CQ-102RC	2 to 6g•cm (0.026 – 0.082 oz•inch)
FF, REW	CQ-201B	61 to 143g•cm (0.85 – 1.98 oz•inch)

• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 100 g (3.53 oz)
Reverse	CQ-403R	more than 100 g (3.53 oz)

SECTION 5
ELECTRICAL ADJUSTMENTS

DECK SECTION | 0 dB=0.775 V

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjust.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-ch.
7. Switches and controls should be set as follows unless otherwise specified.
8. Set to test mode. (Press key switch same time [GROOVE] [ENTER/NEXT] and [DISC 4] buttons.)
   To exit from the test mode, press the [POWER] button.

• Test Tape

Tape	Signal	Used for
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

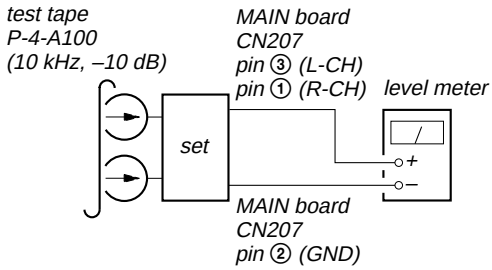
Record/Playback Head Azimuth Adjustment

DECK A **DECK B**

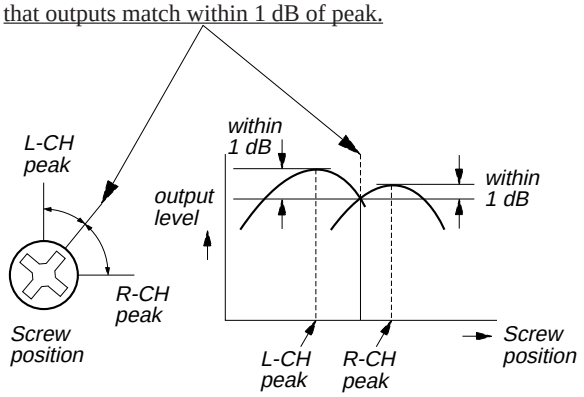
Note: Perform this adjustments for both decks.

Procedure:

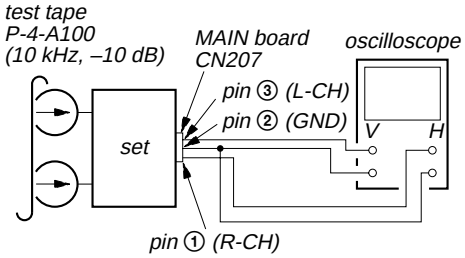
1. Mode: Playback (FWD)

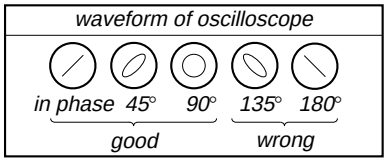


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



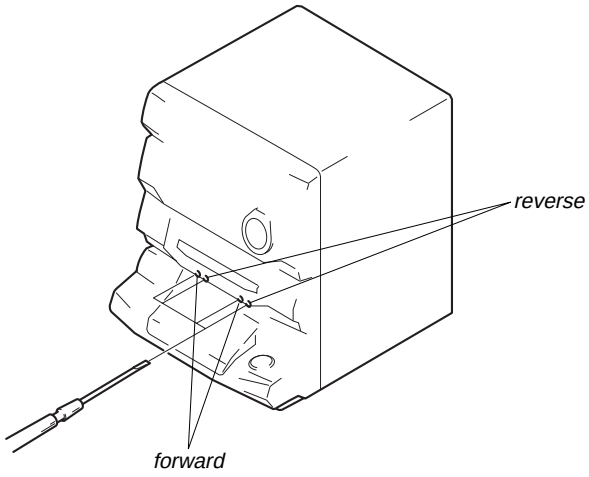
3. Mode: Playback (FWD)





4. Repeat steps 1 to 3 in playback (REV) mode.
5. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location: Playback Head (Deck A)
Record/Playback Head (Deck B)



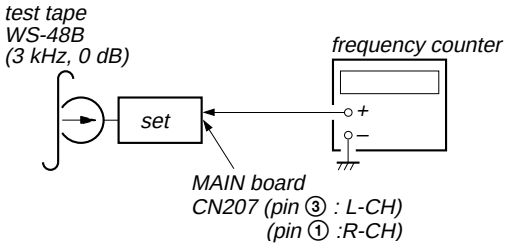
Tape Speed Adjustment DECK A

Note: Start the Tape Speed adjustment as below after setting to the test mode.
In the test mode, the tape speed is high during pressing the H SPEED DUB button.

Procedure:

1. Turn the power switch on.
2. Press the GROOVE button, ENTER/NEXT button and DISC 4 button simultaneously.
   To exit from the test mode, press the POWER button.

Mode: Playback (FWD)



1. Insert the WS-48B into the deck A and the blank tape into the deck B.
2. Press the ● REC button and ▷ button on the deck B. Then the deck B is at recording mode.
3. Set the deck A to playback mode.
4. Keep pressing the H SPEED DUB button in playback mode. Then at high speed mode.
5. Adjust RV652 on the AUDIO board so that frequency counter reads 6,000 ± 90 Hz.
6. Take off the H SPEED DUB button.
   Then at normal speed mode.
7. Adjust RV651 on the AUDIO board so that frequency counter reads 3,000 ± 90 Hz.
8. Frequency difference between deck A and deck B the beginning of the tape should be within ± 1.5 %.

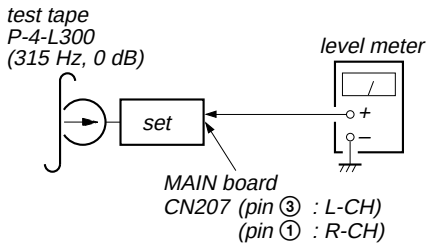
Adjustment Location: AUDIO board (See page 20)

Sample Value of Wow and Flutter: 0.3% or less W.RMS (WS-48B)

Playback level Adjustment DECK A DECK B

Procedure:

Mode: Playback (FWD)



Deck A is RV311 (L-CH) and RV411 (R-CH), Deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within adjustment level as follows.

Adjustment Level:

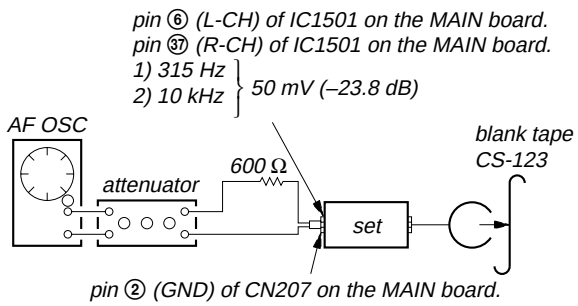
CN207 PB level: 301.5 to 338.3 mV (– 8.2 to – 7.2 dB) level difference between the channels: within ± 0.5 dB

Adjustment Location: AUDIO board (See page 20)

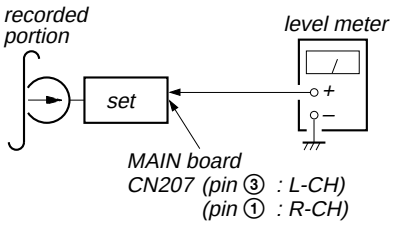
Record bias Current Adjustment DECK B

Procedure:

1. Mode: Record



2. Mode: Playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.
If these levels do not adjustable limits, adjustment the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 1 and 2.

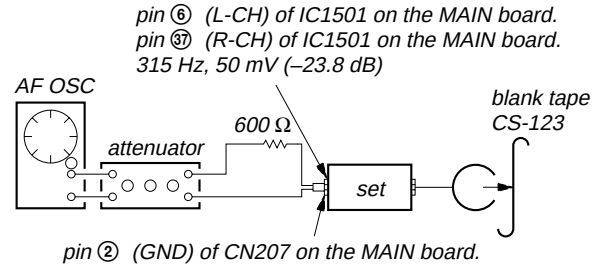
Adjustable limits: Playback output of 315 Hz to playback output of 10 kHz: ±0.5 dB

Adjustment Location: AUDIO board

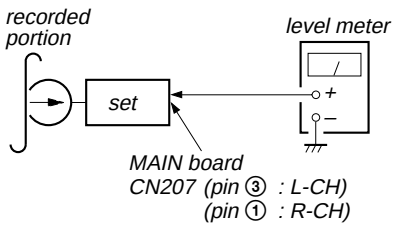
Record Level Adjustment DECK B

Procedure:

1. Mode: Record


pin ⑥ (L-CH) of IC1501 on the MAIN board.
pin ㊲ (R-CH) of IC1501 on the MAIN board.
315 Hz, 50 mV (–23.8 dB)
AF OSC
attenuator
600 Ω
set
blank tape
CS-123
pin ② (GND) of CN207 on the MAIN board.

2. Mode: Playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.
If these levels do not adjustable limits, adjustment the RV1501 (L-CH) and RV1551 (R-CH) on the MAIN board to repeat steps 1 and 2.

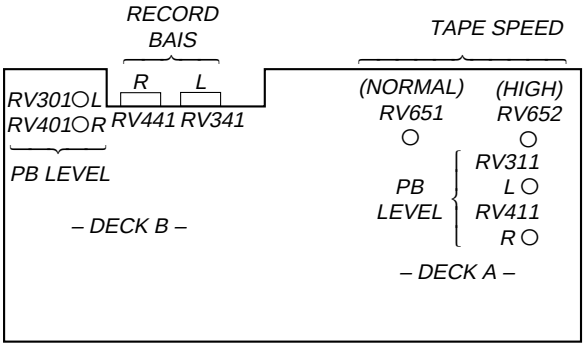
Adjustable limits:

CN207 PB level: 47.3 to 53.1 mV (–24.3 to –23.3 dB)

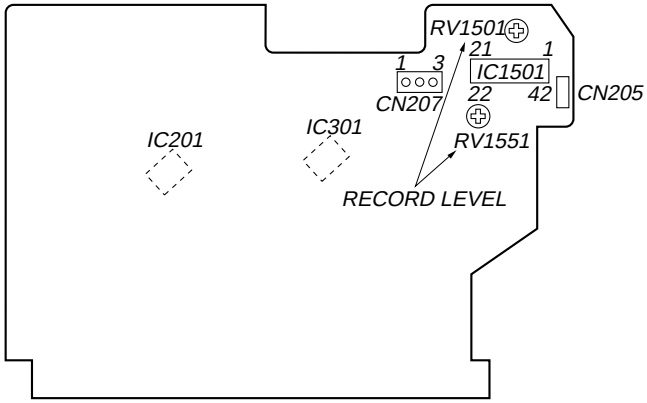
Adjustment Location: MAIN board

Adjustment and Connection Location:

[AUDIO BOARD] (Conductor Side)



[MAIN BOARD] (Component Side)

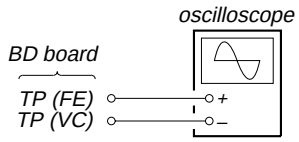


CD SECTION

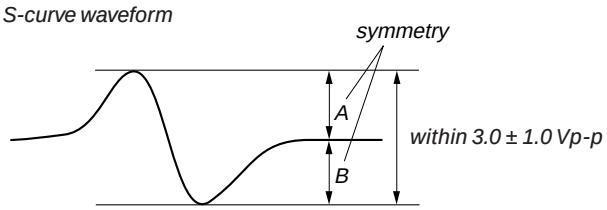
Notes:
1. CD block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (Part No.: 3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10 MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-Curve Check

Connection:



Procedure:
1. Connect the oscilloscope to TP (FE) and TP (VC) on BD board.
2. Connect the TP (FEI) and TP (VC) with lead wire.
3. Turned power switch on.
4. Put disc (YEDS-18) in and turned power switch on again and actuate the focus search.
5. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3.0 ± 1.0 Vp-p.

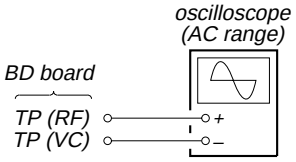


6. After check, remove the lead wire connected in step 2.

Note:
- Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

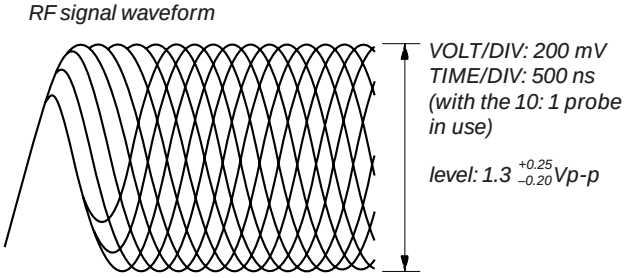
RF Level Check

Connection:



Procedure:
1. Connect the oscilloscope to TP (RF) and TP (VC) on BD board.
2. Turned power switch on. (stop mode)
3. Put disc (YEDS-18) in and press the ▷ button.
4. Confirm that the oscilloscope waveform is clear and check RF signal level is correct or not.

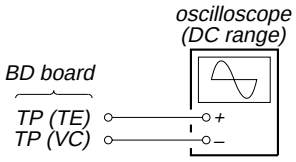
Note: Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.



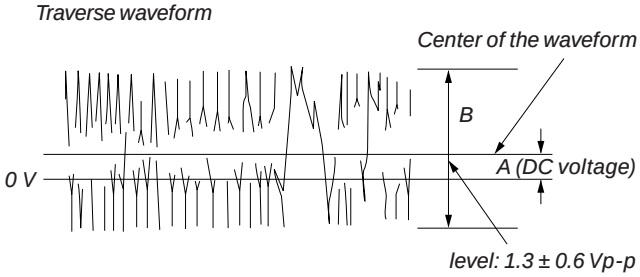
When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

E-F Balance (Traverse) Check

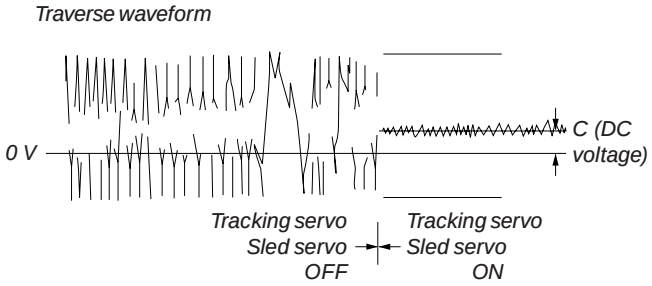
Connection:



Procedure:
1. Connect the oscilloscope to TP (TE) and TP (VC) on BD board.
2. Turned power switch on.
3. Connect the SL702 and SL703 on the VIDEO board with solder.
4. Put disc (YEDS-18) in and press the ▷ button, and play the number five track.
5. Press the REPEAT button. (The tracking servo and the sledding servo are turned off.)
6. Confirm that the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the traverse waveform.
   Confirm the following:
   A/B × 100 = less than ±22 %



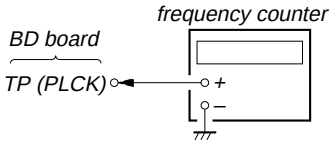
7. Press the REPEAT button. (The tracking servo and the sledding servo are turned on.) Confirm that the C (DC voltage) is almost equal to the A (DC voltage) is step 6.



8. After check, remove the soldering installed in step 3.

RF PLL Free-run Frequency Check

Connection:

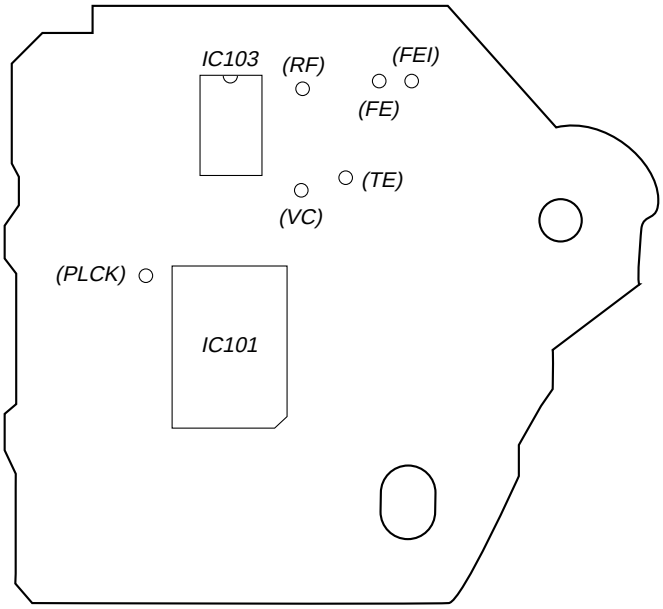


Procedure:

1. Connect the frquency counter to TP (PLCK) on the BD board.
2. Turned power switch on.
3. Put disc (YEDS-18) in and press the ▷ button, and play the number five track.
4. Confirm that the reading on frequency counter is 4.3218 MHz.

Connection Location:

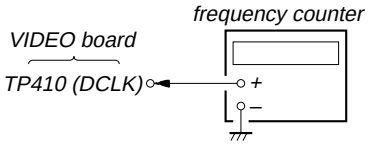
[BD BOARD] (SIDE-A)



VIDEO SECTION

Frequency Adjustment

Connection:

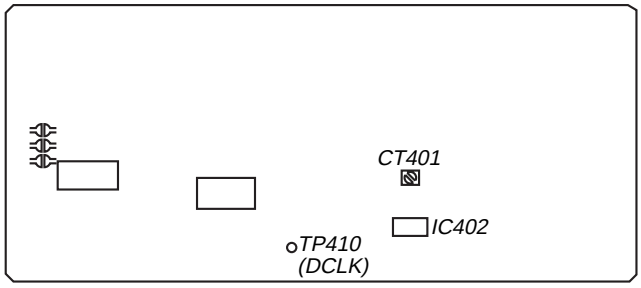


Procedure:

1. Connect the frequency counter to TP410 (DCLK) on VIDEO board.
2. Turned power switch on.
3. Press the FUNCTION button to select the CD.
4. Adjust CT401 on the VIDEO board so that the frequency counter reading 13.5 MHz ± 40 Hz at stop status.

Adjustment Location:

[VIDEO BOARD] (SIDE-B)



SECTION 6
DIAGRAMS

6-1. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC301 μPD780016YGF-015-3BA (MASTER CONTROLLER)

Pin No.	Pin Name	I/O	Function
1	TA-MUTE	O	Line mute control signal output terminal "L": mute on
2	DBFB-$\overline{H}$/L	O	DBFB normal/high selection signal output terminal "L": DBFB high, "H": DBFB low
3	427-LAT	O	Serial data latch pulse output to the electrical volume (IC201)
4	K-CON-LAT	O	Serial data latch pulse output to the key control (IC1401)
5	K-CON-ON	O	On/off selection signal output of the key control circuit "L": on
6	F-RELAY	O	Relay drive signal output for the main speaker (front speaker) "H": on
7	R-RELAY	O	Relay drive signal output terminal Not used (open)
8	PL-RELAY	O	Relay drive signal output terminal Not used (open)
9	TEST	I	Connected to ground
10	X2	O	Main system clock output terminal (5 MHz)
11	X1	I	Main system clock input terminal (5 MHz)
12	VDD	—	Power supply terminal (+5V)
13	XT2	O	Sub system clock output terminal (32.768 kHz)
14	XT1	I	Sub system clock input terminal (32.768 kHz)
15	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC302) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
16	(INT/IN)	I	Connected to ground
17	(INT/IN/OUT)	I	Connected to ground
18	SCOR	O	Subcode sync (S0+S1) detection signal input terminal Not used (fixed at "L")
19	SOFT-TEST	O	Output terminal for the software test (open)
20	AC-CUT	I	AC off detection signal input from the reset signal generator (IC302)
21	RDS-INT	I	Serial data reading clock signal input for the radio data system Not used (fixed at "L")
22	RDS-DATA	I	Serial data input for the radio data system Not used (open)
23	VDD	—	Power supply terminal (+5V)
24	AVDD	—	Power supply terminal (+5V) (for A/D conversion)
25	ADJ	I	Setting terminal for the test Normally: "H"
26	A-SHUT	I	Shut off detection signal input from the deck-A reel pulse detector (Q1001)
27	B-SHUT	I	Shut off detection signal input from the deck-B reel pulse detector (Q1002)
28	B-HALF	I	Detection input from the deck-B half detect switch (S1007)
29	CLK-CHECK	I	Not used (fixed at "L")
30	SPEC-IN	I	Setting terminal for the version
31	ADJ2	I	Setting terminal for the test Normally: "L"
32	DEMO-MODE	I	Setting terminal for the demonstration H/L Fixed at "L"
33	AVSS	—	Ground terminal (for A/D conversion)
34	SQ-DATA-IN	I	Sub-code Q data input terminal Not used (fixed at "L")
35	—	—	Not used (open)
36	D.OUT ON/OFF	O	Power on/off selection signal output for the CD digital out optical "H": power on Not used (open)
37	SW-ON/OFF	O	Not used (open)
38	FUNC1	I	Setting terminal for the function 1 Fixed at "L"
39	FUNC2	I	Setting terminal for the function 2 Fixed at "L"
40	VSS	—	Ground terminal
41	VOL-LAT	O	Serial data latch pulse output terminal Not used (open)
42	PL-LAT	O	Serial data latch pulse output terminal Not used (open)
43	COM-DIN	I	Serial data input terminal Not used (fixed at "L")

Pin No.	Pin Name	I/O	Function
44	COM-DOUT	O	Serial data output to the electrical volume (IC201) and key control (IC501)
45	COM-CLK	O	Serial data transfer clock signal output to the electrical volume (IC201) and key control (IC501)
46	CD-POWER	O	Power on/off selection signal output for the CD circuit "H": power on
47	CD-DATA	O	Serial data output terminal Not used (open)
48	CD-CLK	O	Serial data transfer clock signal output terminal Not used (open)
49	MSM-CND	O	Command data output terminal Not used (open)
50	MSM-BUSY	I	Busy signal input terminal "L": busy Not used (fixed at "L")
51	MSM-LAT	O	Serial data latch pulse output terminal Not used (open)
52	MSM-NAR	I	NAR signal output terminal Not used (open)
53	MSM-CH	O	Channel select output terminal Not used (open)
54	INPUT-CHANGE	O	Input gain control signal output terminal "L": VIDEO, "H": MD Not used (open)
55	IIC-DATA	I/O	Communication data bus with the fluorescent indicator tube driver (IC601) and IIC interface controller (IC901)
56	IIC-CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the fluorescent indicator tube driver (IC601) and IIC interface controller (IC901)
57	$\overline{\text{XRST}}$	O	Reset signal output to the IIC interface controller (IC901) "L": reset
58	XLT	O	Serial data latch pulse output terminal Not used (open)
59	FOCUS-SW	O	Focus control signal output terminal Not used (open)
60	TBL-L	O	Motor drive signal output to the disc tray turn motor driver (IC201)
61	TBL-R	O	Motor drive signal output to the disc tray turn motor driver (IC201)
62	TRAY-LED	O	LED on/off control signal output for the CD tray LED "H": LED on
63	LOAD-OUT	O	Motor drive signal output terminal Not used (open)
64	LOAD-IN	O	Motor drive signal output terminal Not used (open)
65	ST-CLK	O	PLL serial data transfer clock signal output to the FM/AM tuner unit
66	ST-DIN	I	PLL serial data input from the FM/AM tuner unit
67	ST-DOUT	O	PLL serial data output to the FM/AM tuner unit
68	ST-CE	O	PLL chip enable signal output to the FM/AM tuner unit
69	TUNED	I	Tuning detection signal input from the FM/AM tuner unit "L": TUNED
70	STEREO	I	FM stereo detection signal input from the FM/AM tuner unit "L": STEREO
71	VSS	—	Ground terminal
72	ST-MUTE	O	Tuner mute control signal output to the FM/AM tuner unit "L": mute on
73	SENS2	I	Internal status (SENSE) signal input terminal Not used (fixed at "L")
74	SENS	I	Internal status (SENSE) signal input terminal Not used (fixed at "L")
75	DISC-SENS	I	Disc status detection signal input terminal Not used (open)
76	T-SENS	I	Disc tray status detection signal input from the disc tray sensor (IC202)
77	UPSW	I	Detection input from the up switch (S201)
78	ENC3	I	Tray address detect signal input terminal Not used (open)
79	ENC2	I	
80	ENC1	I	
81	OUT-OPEN	I	Disc tray open/close detect signal input terminal "L": open, "H": close Not used (open)
82	CAP-$\overline{\text{H}}$/N	O	High/normal speed selection signal output of the capstan motor (M1) "L": high speed, "H": normal speed
83	A-TRG	O	Motor drive signal output to the trigger motor driver (IC1502)
84	B-TRG	O	Motor drive signal output to the trigger motor driver (IC1502)
85	TRG-LOW	O	Motor control signal output to the trigger motor driver (IC1502)
86	CAP-M-$\overline{\text{ON}}$/OFF	O	Capstan motor on/off control signal output terminal "L": capstan motor on

Pin No.	Pin Name	I/O	Function
87	PB-$\overline{A}$/B	O	Deck-A/B selection signal output to the HA12203NT (IC1501) "L": deck-A, "H": deck-B
88	EQ-H/$\overline{N}$	O	Normal/high speed selection signal output to the HA12203NT (IC1501) "L": normal speed, "H": high speed
89	BIAS	O	Recording bias on/off selection signal output to the HA12203NT (IC1501) "L": bias off, "H": bias on
90	REC-MUTE	O	Recording mute on/off selection signal output to the HA12203NT (IC1501) "L": mute on, "H": mute off
91	NR-ON/$\overline{OFF}$	O	Dolby NR on/off selection signal output to the HA12203NT (IC1501) "L": dolby off, "H": dolby on
92	R/P-PASS	O	Recording/playback/pass selection signal output to the HA12203NT (IC1501)
93	TC-MUTE	O	Line mute on/off selection signal output to the HA12203NT (IC1501) "L": mute off, "H": mute on
94	A-PLAY-SW	I	Detection input from the deck- A play detect switch (S1001) "H": deck-A play
95	B-PLAY-SW	I	Detection input from the deck- B play detect switch (S1002) "H": deck-B play
96	RELAY	O	Recording/playback select signal output to the REC/PB switch (IC602) "L": playback, "H": recording
97	A-HALF	I	Detection input from the deck-A cassette detect switch (S1004) "L": cassette in, "H": no cassette
98	POWER	O	On/off selection signal output of the main power supply "L": power on
99	SW-F-CON	O	Control signal output of the super woofer mode "H": music, "L": movie
100	STK-MUTE	O	Power amplifier on/off selection signal output terminal "L": on, "H": standby

• PANEL BOARD IC601 TMP87CH74-6566
(FLUORESCENT INDICATOR TUBE DRIVER, KEY CONTROL, LED DRIVER)

Pin No.	Pin Name	I/O	Function
1	LED3	O	LED drive signal output terminal (SUPER WOOFER, ❚❚ (CD))
2	LED4	O	LED drive signal output terminal (▷ (CD))
3	LED5	O	LED drive signal output terminal (deck-B ◁ / ▷)
4	LED6	O	LED drive signal output terminal (❚❚ / ● REC (TAPE))
5	LED7	O	LED drive signal output terminal (EFFECT, ENTER)
6	LED8	O	LED drive signal output terminal (FILE 1/2)
7	VSS	—	Ground terminal
8	X-OUT	O	System clock output terminal (8 MHz)
9	X-IN	I	System clock input terminal (8 MHz)
10	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC302) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
11	LED9	O	LED drive signal output terminal Not used (connected to ground)
12	LED10	O	LED drive signal output terminal Not used (connected to ground)
13	TEST	I	Connected to ground
14	LED11	O	LED drive signal output terminal (FILE 3/4)
15	LED12	O	LED drive signal output terminal (FILE 5, P FILE)
16	LED13	O	LED drive signal output terminal (MENU 2/1)
17	LED14	O	LED drive signal output terminal (KEY CONTROL)
18	LED15	O	LED drive signal output terminal (decck-A ▷ / ◁)
19	LED16	O	LED drive signal output terminal (CD NON-STOP, VCD)
20	VOL-A	I	Rotary encoder pulse input from the S701 (VOLUME)
21	DOOR SW	I	CD door switch (S691 (⏏ OPEN)) input terminal
22	JOG-A	I	Jog dial pulse input from the S711 (⏮ AMS ⏭)
23	CLOCK	I/O	Communication data reading clock signal input or transfer clock signal output with the master controller (IC301) and IIC interface controller (IC901)
24	DATA	I/O	Communication data bus with the master controller (IC301) and IIC interface controller (IC901)
25	LED SELECT	O	LED selection signal output terminal
26	MODEL	I	Destination setting terminal
27	KEY-1	I	Key input terminal (A/D input) (S601 to 608, 651 to 659) ENTER/NEXT, TUNER MEMORY, TUNING MODE, TUNER/BAND, TUNING +/–, STEREO/MONO, FUNCTION, deck-B (▷ / ◁ / ▶▶ / ◀◀ / ■), ❚❚ , ● REC, H SPEED DUB, CD SYNC
28	KEY-2	I	Key input terminal (A/D input) (S609 to 615, 676 to 679, 681 to 686) GROOVE, GEQ ▲ / ◀ / ▶ / ▼ , SUPER WOOFER, SUPER W MODE, CD (▷ / ■ / ❚❚), DISC SKIP, CD (▶▶), REPEAT, PLAY MODE, 1/ALL DISCS, EDIT, CD (◀◀)
29	KEY-3	I	Key input terminal (A/D input) (S616 to 618, 641 to 647, 661 to 666, 670, 671) GEQ CONTROL, ENTER, EFFECT, deck-A (▷ / ◁ / ■ / ◀◀ / ▶▶), DOLBY NR, DIRECTION, DISC 1 to DISC 5, CD FLASH, PREV, NEXT
30	KEY-4	I	Key input terminal (A/D input) (S619 to 626, 628 to 633, 667 to 669) SPECTRUM ANALYZER, DISPLAY/DEMO, POWER. CLOCK SET, REC, DAILY 1/2, SLEEP, WAVE, KARAOKE PON/MPX, SURROUND, P FILE MEMORY, ♯, ♭, CD NON-STOP, CD LOOP, RETURN
31	LED17	O	LED drive signal output terminal (PBC, AUTO PBC)
32	L+R	I	Spectrum analyzer drive signal input terminal (for high frequency)

Pin No.	Pin Name	I/O	Function
33	SIRCS	I	Sircs input from the remote control receiver (IC602)
34	VOL-B	I	Rotary encoder pulse input from the S701 (VOLUME)
35	JOG-B	I	Jog dial pulse input from the S711 (⏮ AMS ⏭)
36	SPEANA-1	I	Spectrum analyzer drive signal input terminal (A/D input)
37	SPEANA-2	I	
38	VASS	—	Ground terminal
39	VAREF	I	Reference voltage (+5V) input terminal (for A/D conversion)
40	VDD	—	Power supply terminal (+5V)
41	—	—	Not used (open)
42 to 56	GR-1 to GR-15	O	Grid drive signal output to the fluorescent indicator tube (FL601)
57 to 77	SEG-1 to SEG-21	O	Segment drive signal output to the fluorescent indicator tube (FL601)
78	VKK	—	Power supply terminal (–30 V) (for fluorescent indicator tube drive)
79	LED1	O	LED drive signal output terminal (TUNER/BAND)
80	LED2	O	LED drive signal output terminal (ENTER/NEXT, GROOVE)

• VIDEO BOARD IC701 HD6433032SK12F (CD MECHANISM CONTROLLER)

Pin No.	Pin Name	I/O	Function
1	CMD0	I/O	Two-way data bus with the IIC interface controller (IC901)
2	CMD1	I/O	
3	CMD2	I/O	
4	CMD3	I/O	
5	SACK	O	Data acknowledge output to the IIC interface controller (IC901)
6	QINT	I	Interrupt status input from the IIC interface controller (IC901)
7	VDAC-XLAT	O	Serial data latch pulse output to the video D/A converter (IC401)
8	DF-XLAT	O	Serial data latch pulse output to the D/A converter/digital filter (IC101)
9	P90/TXD	O	Transmit data output terminal Not used (open)
10	SUBQ	I	Sub-code Q data signal input from the CXD2545Q (IC101)
11	SQCK	O	Sub-code Q data transfer clock signal output to the CXD2545Q (IC101)
12	VSS	—	Ground terminal
13	D0	I/O	Two-way data bus with the S-RAM (IC751)
14	D1	I/O	
15	D2	I/O	
16	D3	I/O	
17	D4	I/O	
18	D5	I/O	
19	D6	I/O	
20	D7	I/O	
21	VCC	—	Power supply terminal (+5V)
22	A0	O	Address signal output to the MPEG audio/video decoder (IC201) and S-RAM (IC751)
23	A1	O	
24	A2	O	
25	A3	O	
26	A4	O	Address signal output to the S-RAM (IC751)
27	A5	O	
28	A6	O	
29	A7	O	
30	VSS	—	Ground terminal
31	A8	O	Address signal output to the S-RAM (IC751)
32	A9	O	
33	A10	O	
34	A11	O	
35	A12	O	
36	A13	O	Address signal output terminal Not used (open)
37	A14	O	
38	A15	O	
39	A16	O	
40	A17	O	Address signal output terminal Used for chip enable signal output to the S-RAM (IC751)
41	A18	O	
42	A19	O	Address signal output terminal Not used (open)
43	$\overline{\text{WAIT}}$	I	Wait signal input from the MPEG audio/video decoder (IC201)
44	MD0	I	Mode selection terminal (fixed at “H”)
45	MD1	I	Mode selection terminal (fixed at “L”)
46	Φ	O	System clock signal output terminal Not used (open)

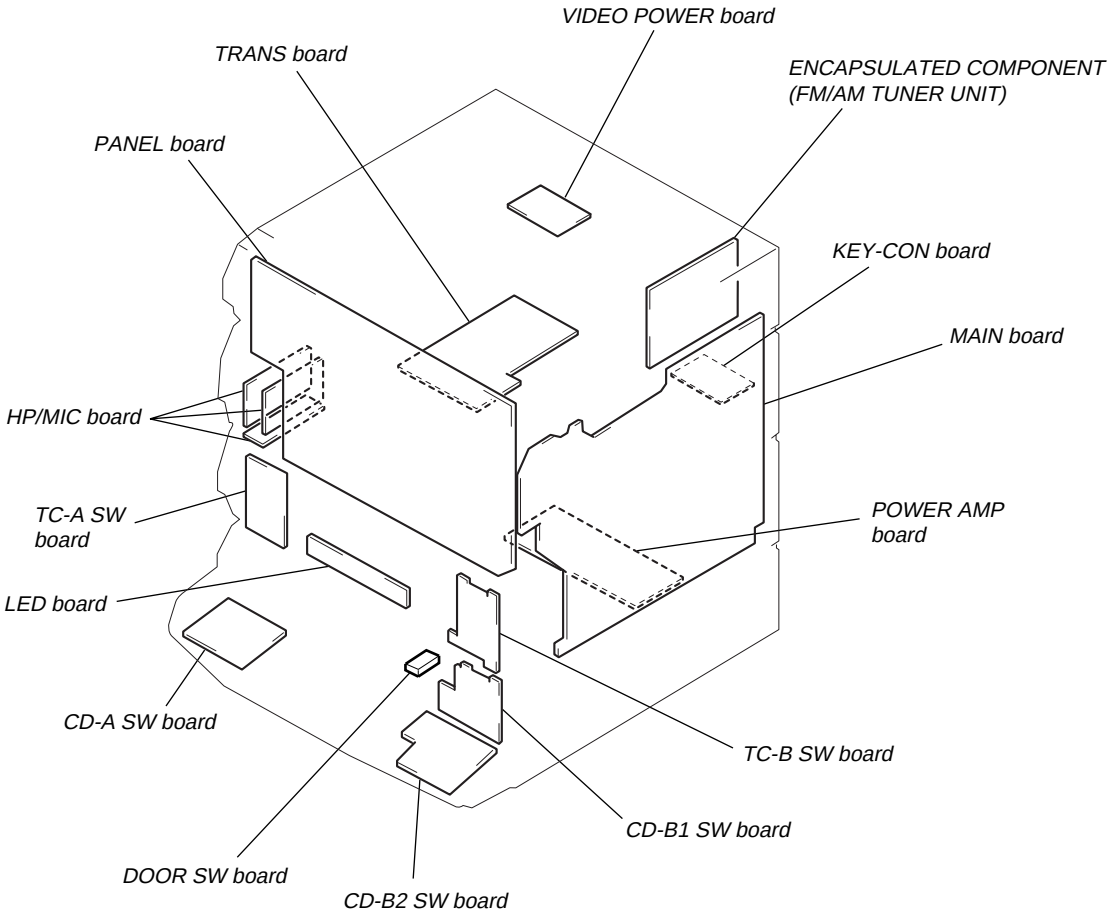
Pin No.	Pin Name	I/O	Function
47	$\overline{\text{STBY}}$	I	Hardware standby signal input terminal (fixed at “H”)
48	$\overline{\text{RESET}}$	I	Reset signal input from the IIC interface controller (IC901) “L”: reset
49	NMI	I	Non-maskable interrupt input terminal (fixed at “H”)
50	VSS	—	Ground terminal
51	EXTAL	O	System clock output terminal (10 MHz)
52	XTAL	I	System clock input terminal (10 MHz)
53	VCC	—	Power supply terminal (+5V)
54	$\overline{\text{AS}}$	O	Address strobe signal output to the MPEG audio/video decoder (IC201) Used for chip select signal output to the MPEG audio/video decoder (IC201)
55	$\overline{\text{RD}}$	O	Data reading strobe signal output to the S-RAM (IC751)
56	$\overline{\text{WR}}$	O	Data writing strobe signal output to the MPEG audio/video decoder (IC201) and S-RAM (IC751)
57	$\overline{\text{RESO}}$	O	Reset signal output terminal Not used (open)
58	AVSS	—	Ground terminal (for A/D conversion)
59	TEST0	I	Setting terminal for the test (color bar mode) Normally: “H”
60	TEST1	I	Setting terminal for the test (E-F balance mode) Normally: “H”
61	TE	I	Setting terminal for the test (E-F balance mode) Normally: “H”
62	SENS	I	Internal status (SENSE) signal input from the CXD2545Q (IC101)
63	DAC-SEL	I	Setting terminal of the D/A converter (fixed at “H”)
64	NPIN	I	Video system selection input from the system select switch (S9001) “L”: PAL, “H”: NTSC, Middle: AUTO
65	VSS	—	Ground terminal
66	$\overline{\text{VREQ}}$	I	Request signal input terminal Not used (fixed at “H”)
67	VREF	I	Reference voltage (+5V) input terminal
68	AVCC	—	Power supply terminal (for A/D conversion)
69	CHECK-LED	O	LED drive signal output for the self diagnosis indicator Normally: LED on (“H” output), Error: LED blinking
70	XHIRQ	I	Interruption request signal input from the MPEG audio/video decoder (IC201)
71	SCOR	I	Sub-code sync (S0+S1) detection signal input from the CXD2545Q (IC101)
72	MREQ	I	Communication request signal input from the IIC interface controller (IC901)
73	DATA	O	Serial data output to the CXD2545Q (IC101), D/A converter/digital filter (IC101), and video D/A converter (IC401)
74	AMUTE	O	Mute control signal output to the CXD2545Q (IC101) and D/A converter/digital filter (IC101)
75	LDON	O	Laser on/off selection signal output to the CXA1821M (IC103) “H”: laser on
76	XLT	O	Serial data latch pulse output to the CXD2545Q (IC101)
77	SCLK	O	Serial data transfer clock signal output to the CXD2545Q (IC101)
78	CLK	O	Serial data transfer clock signal output to the CXD2545Q (IC101), D/A converter/digital filter (IC101), and video D/A converter (IC401)
79	NR-SEL	I	Setting terminal of the video noise reduction (fixed at “H”)
80	—	—	Not used (open)

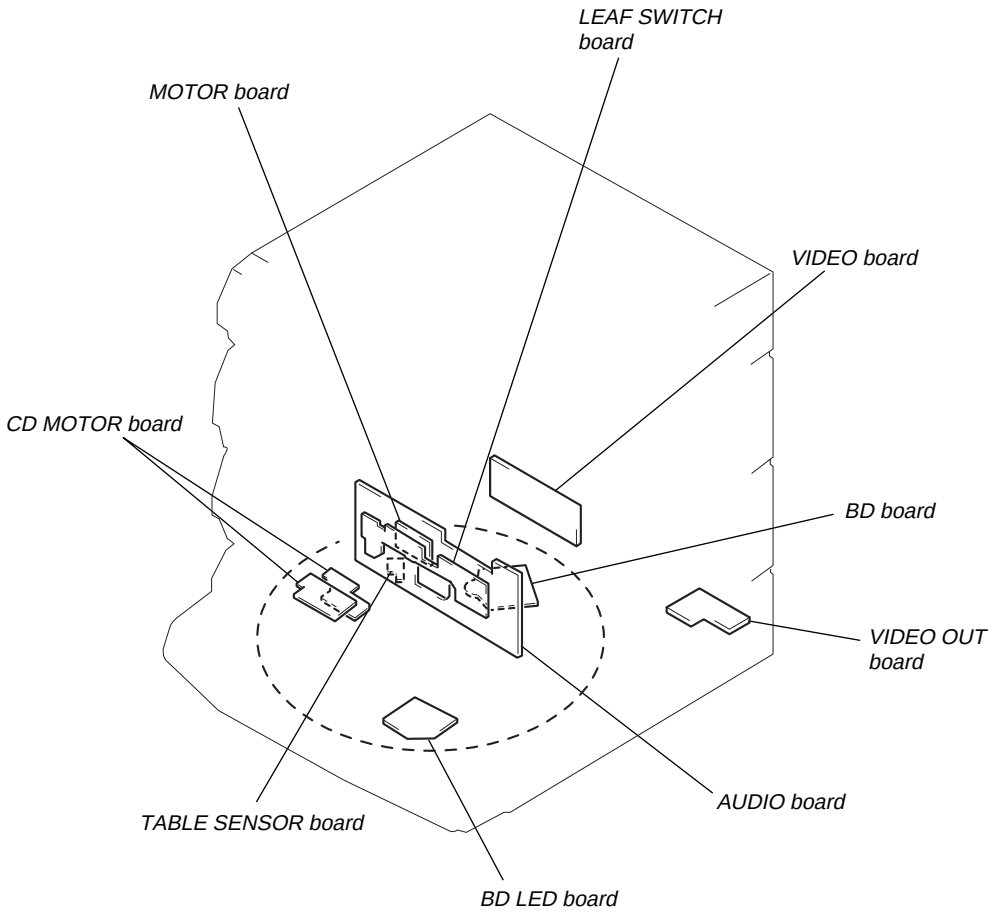
• VIDEO BOARD IC901 μPD780016YGF-012-3BA (IIC INTERFACE CONTROLLER)

Pin No.	Pin Name	I/O	Function
1 to 8	P80 to P87	I	Not used (fixed at "L")
9	TEST	I	Test terminal (fixed at "L")
10	X2	O	Main system clock output terminal (5 MHz)
11	X1	I	Main system clock input terminal (5 MHz)
12	VDD	—	Power supply terminal (+5V)
13	XT2	O	Sub system clock output terminal Not used (open)
14	XT1	I	Sub system clock input terminal Not used (fixed at "H")
15	$\overline{\text{RESET}}$	I	Reset signal input from the master controller (IC301) "L": reset
16	P00	I	Inputs the boundary point control (phase fix) for CXD1854Q (IC301) (fixed at "L")
17	P01	I	Inputs the boundary point control (phase switch) for CXD1854Q (IC301) (fixed at "L")
18	QINT	I	Interrupt status input from the CD mechanism controller (IC701)
19 to 22	P03 to P06	I	Inputs the boundary point control (phase 0 to 3) for CXD1854Q (IC301) (fixed at "L")
23	VDD	—	Power supply terminal (+5V)
24	AVDD	—	Power supply terminal (+5V) (for A/D conversion)
25 to 32	P10 to P17	I	Not used (fixed at "L")
33	AVSS	—	Ground terminal (for A/D conversion)
34	CMD0	I/O	Two-way data bus with the mechanism controller (IC701)
35	CMD1	I/O	
36	CMD2	I/O	
37	CMD3	I/O	
38	P24	I	Not used (fixed at "L")
39	P25	I	Not used (fixed at "L")
40	VSS	—	Ground terminal
41	P26	I	Not used (fixed at "L")
42	P27	I	Not used (fixed at "L")
43	MREQ	O	Communication request signal output to the CD mechanism controller (IC701)
44	SACK	I	Data acknowledge input from the CD mechanism controller (IC701)
45	CDGM	I	Not used (fixed at "L")
46	P93	I	Not used (fixed at "L")
47	MDATA	O	Serial data output to the on screen display controller (IC271) and video noise reduction (IC301)
48	MCLK	O	Serial data transfer clock signal output to the on screen display controller (IC271) and video noise reduction (IC301)
49	OS-XLAT	O	Serial data latch pulse output to the on screen display controller (IC271)
50	G-XLAT	O	Serial data latch pulse output terminal Not used (open)
51	$\overline{\text{G-XRST}}$	O	Reset signal output terminal Not used (open)
52	$\overline{\text{CD-XRST}}$	O	Reset signal output to the CD/video CD circuit "L": reset
53	CDPOW	O	Power on/off selection signal output terminal Not used (open)
54	DOUT	O	Digital output terminal Not used (open)
55	IIC-DATA	I/O	Communication data bus with the master controller (IC301) and fluorescent indicator tube driver (IC601)
56	IIC-CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the master controller (IC301) and fluorescent indicator tube driver (IC601)
57 to 64	P40 to P47	I	Not used (fixed at "L")
65	NRON	O	Video noise reduction system on/off selection signal output terminal Not used (open)
66	LEVEL0	O	Level control signal output terminal Not used (open)
67	LEVEL1	O	Level control signal output terminal Not used (open)

Pin No.	Pin Name	I/O	Function
68	NR-XCS	O	Chip select signal output to the video noise reduction (IC301)
69	P54	I	Not used (fixed at “L”)
70	P55	I	Not used (fixed at “L”)
71	VSS	—	Ground terminal
72	P56	I	Not used (fixed at “L”)
73	P57	I	Not used (fixed at “L”)
74 to 81	P60 to P67	I	Not used (fixed at “L”)
82 to 85	P100 to P103	I	Not used (fixed at “L”)
86 to 93	P30 to P37	I	Not used (fixed at “L”)
94 to 100	P150 to P156	I	Not used (fixed at “L”)

• Circuit Boards Location

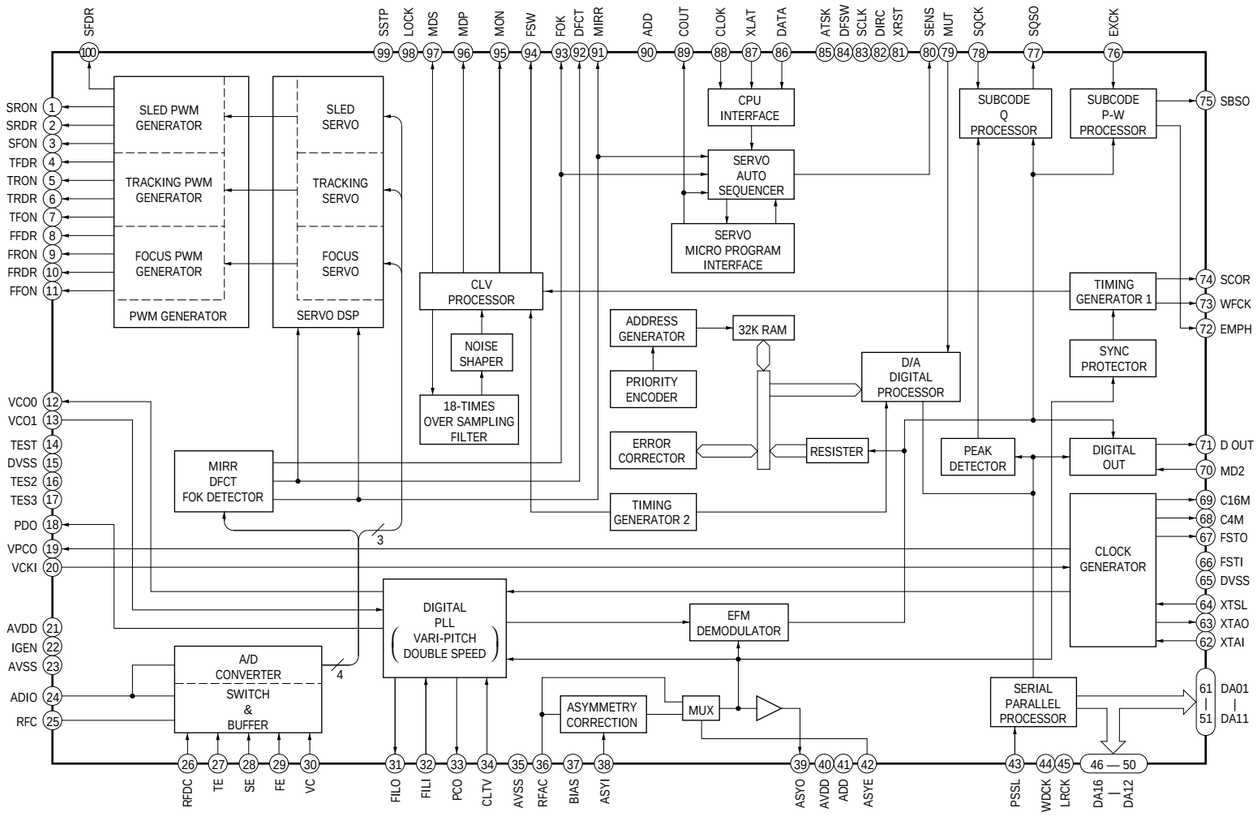




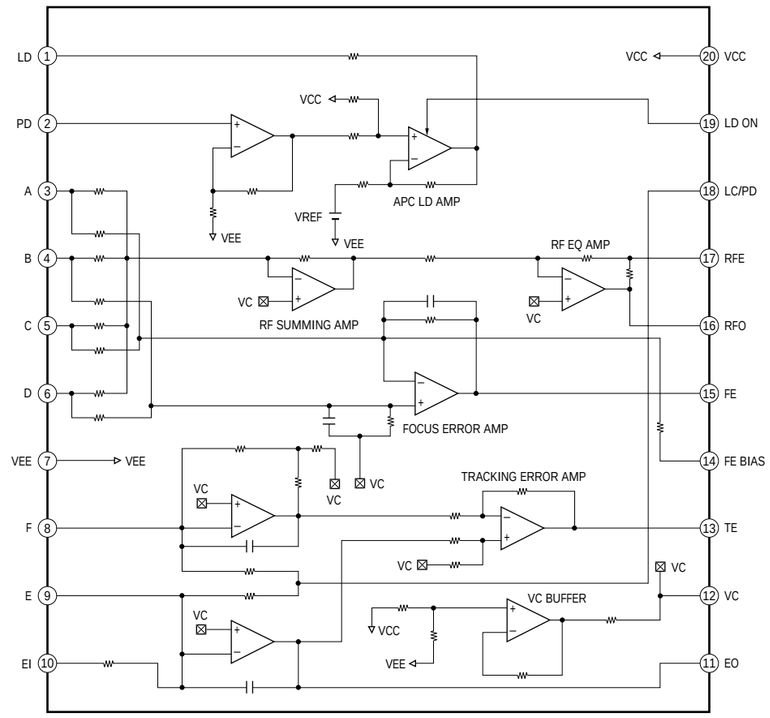
• IC Block Diagrams

– BD Section –

IC101 CXD2545Q

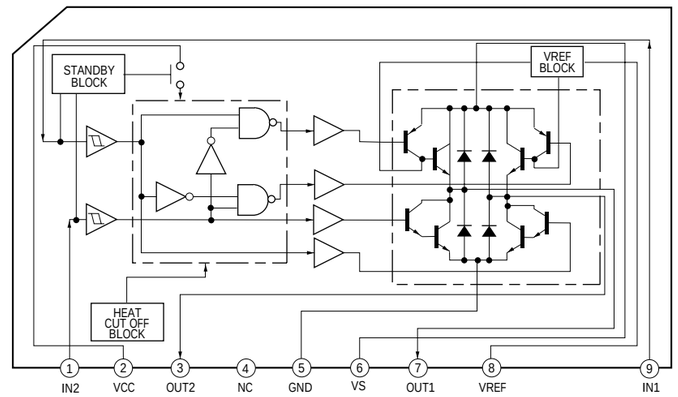


IC103 CXA1821M-T6



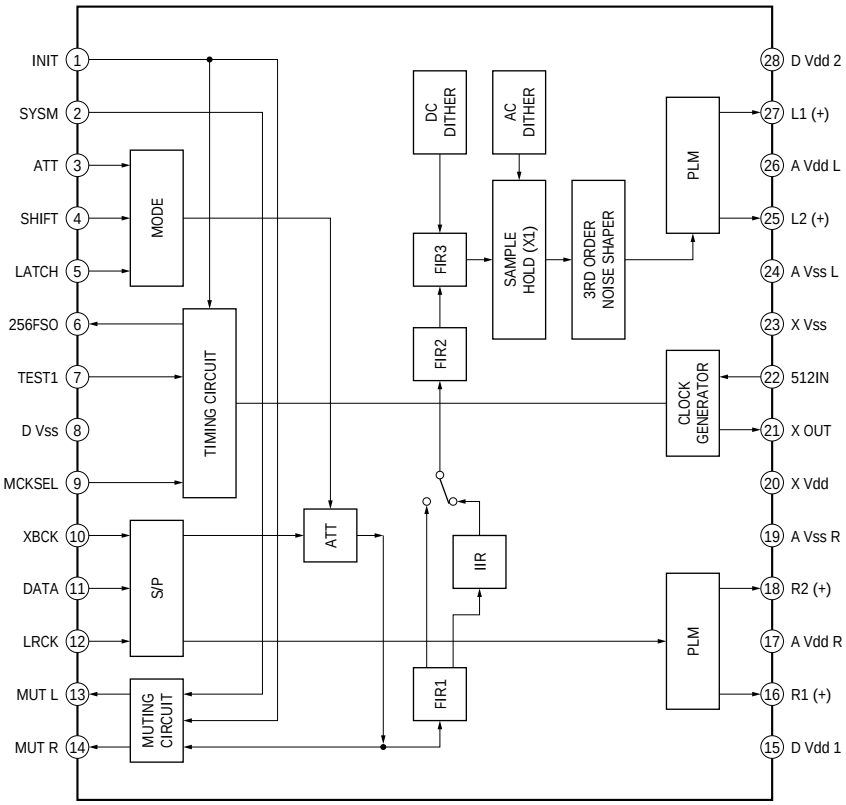
– CD MOTOR Section –

IC201 TA8409S

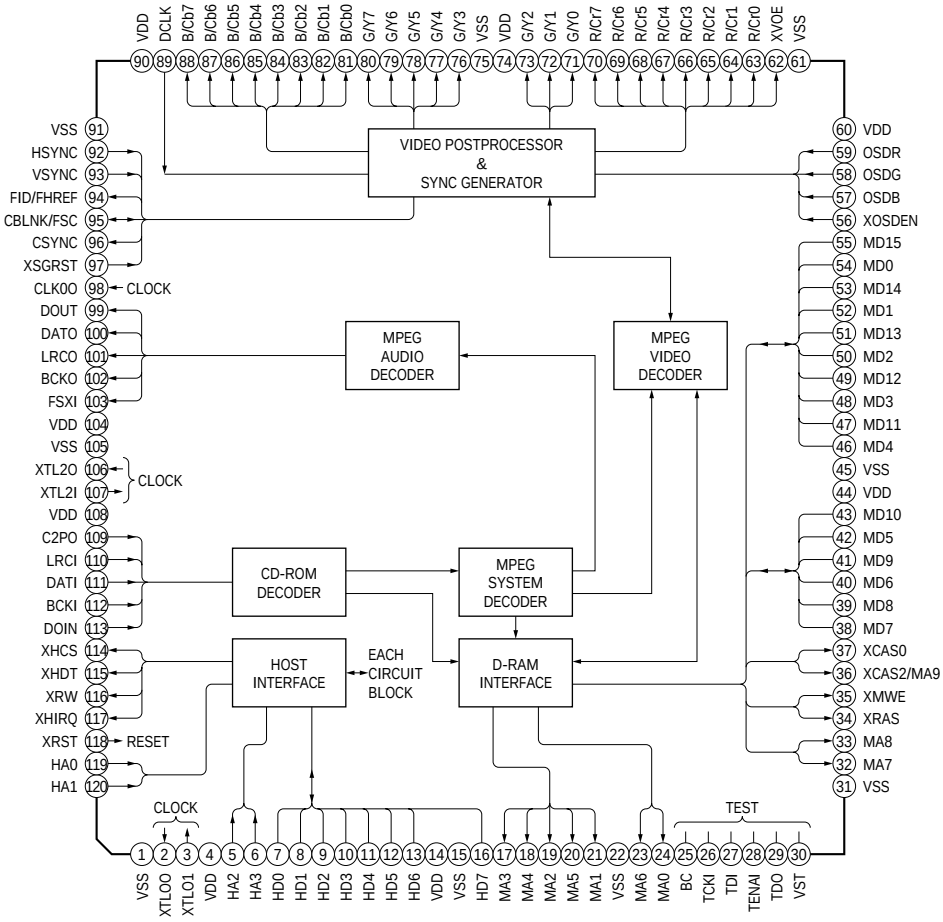


– VIDEO Section –

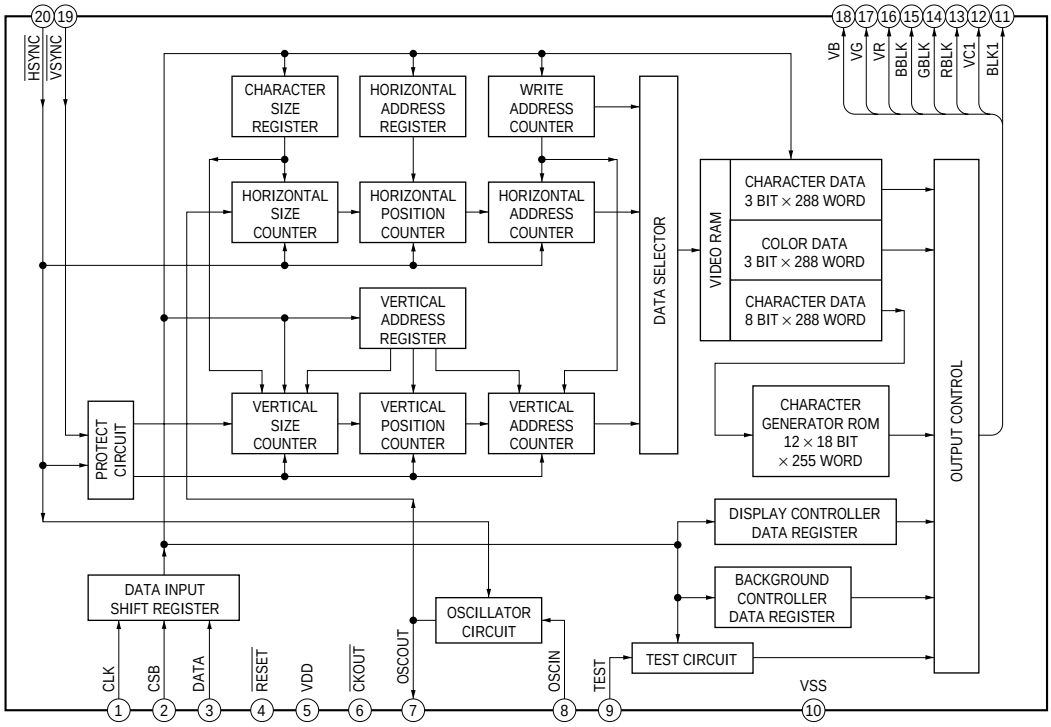
IC101 CXD8567AM



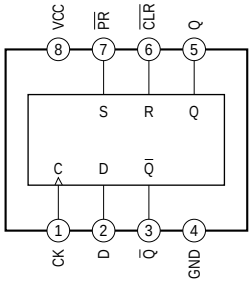
IC201 CXD1852AQ



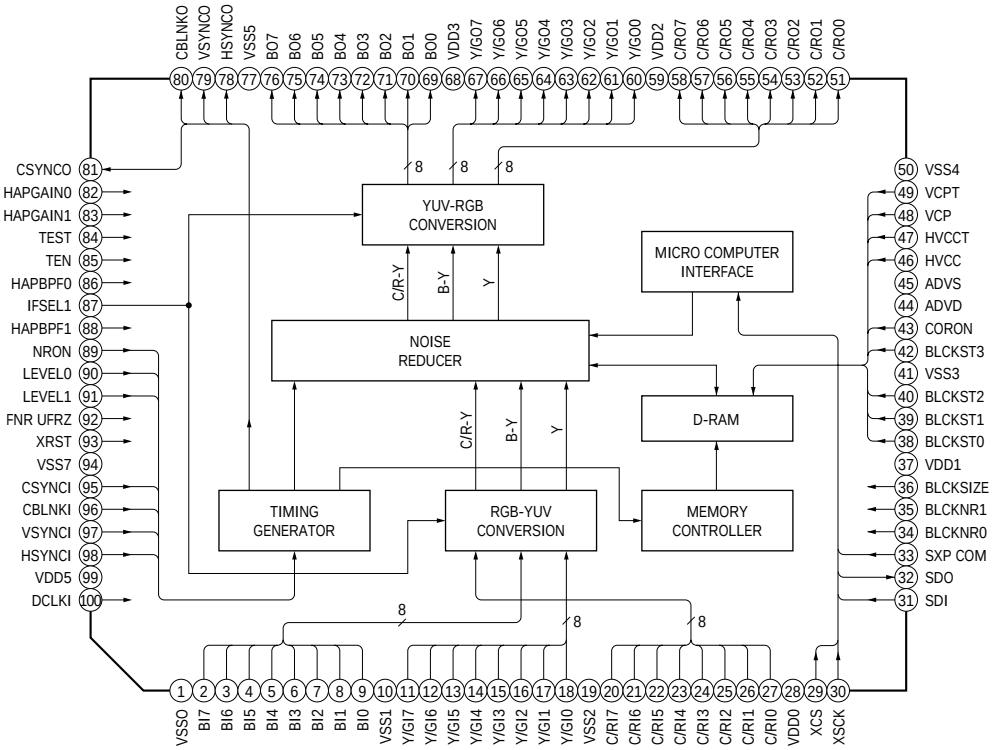
IC271 BU6257FV-E2



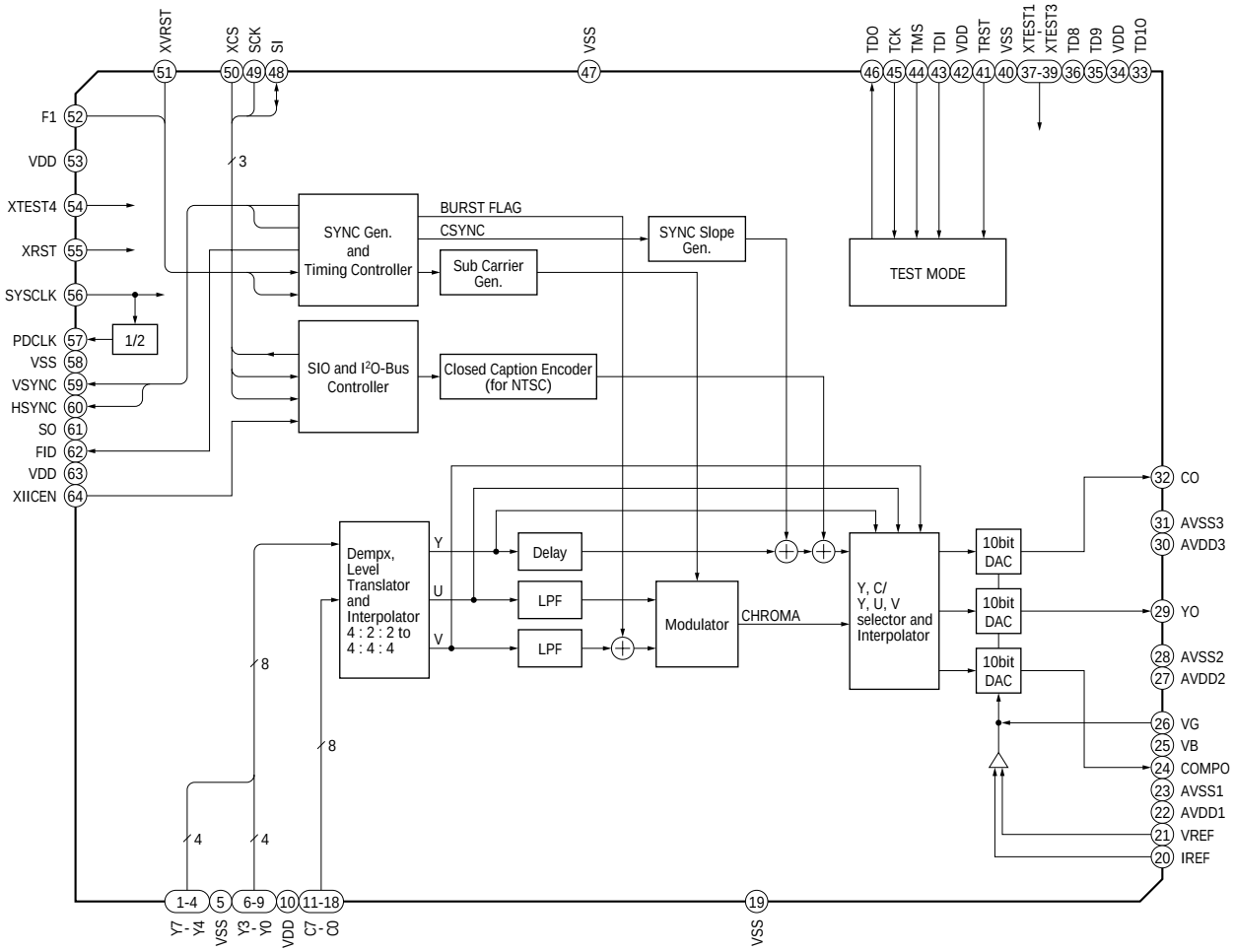
IC272 TC7W74F



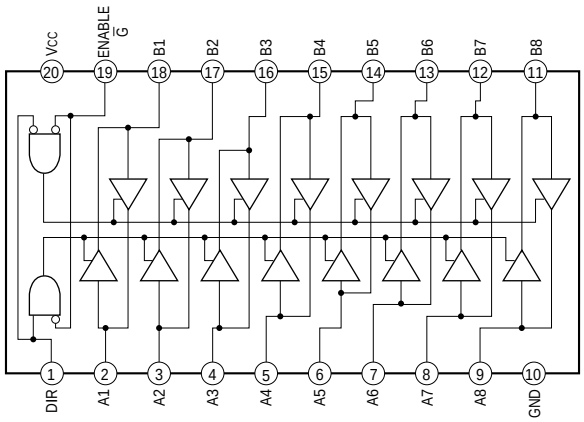
IC301 CXD1854Q



IC401 CXD1913Q

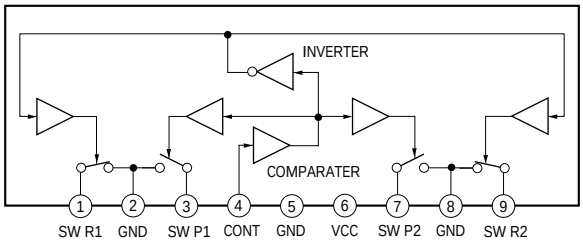


IC501 SN74HC245ANS

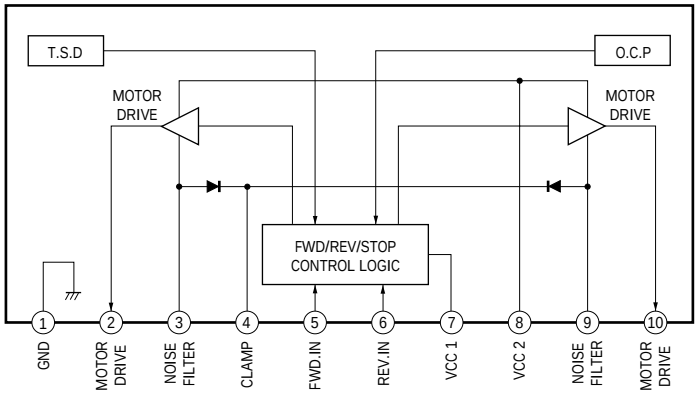


– DECK Section –

IC602 µPC1330HA

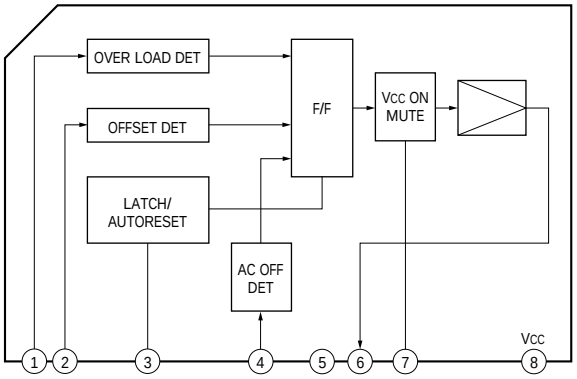


IC1502 LB1641

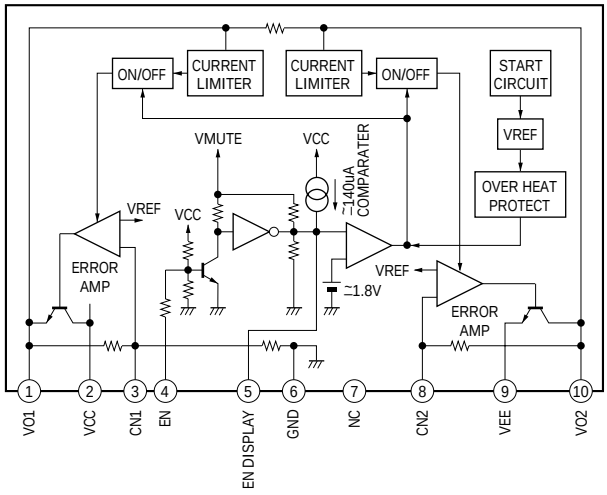


– MAIN/POWER SUPPLY Section –

IC281 µPC1237HA

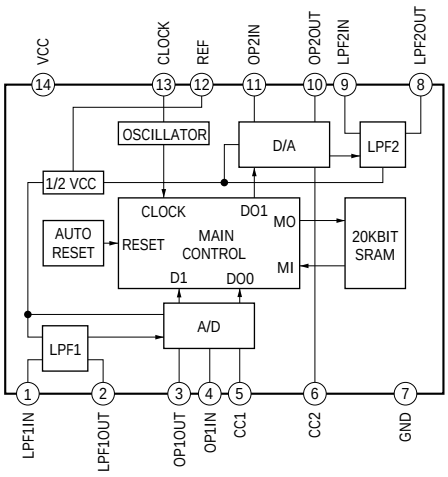


IC901 LA5617



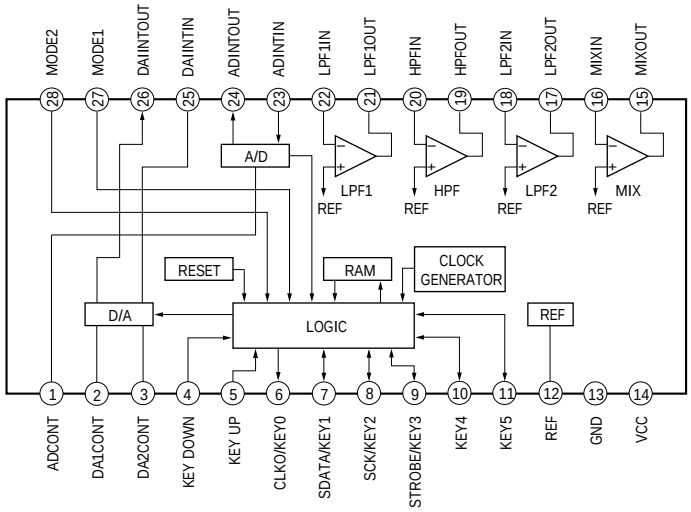
– PANEL Section –

IC761 M65850P



– POWER AMP/KEY CONTROL Section –

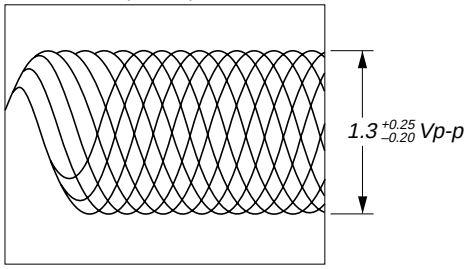
IC501 M65847FP-TP



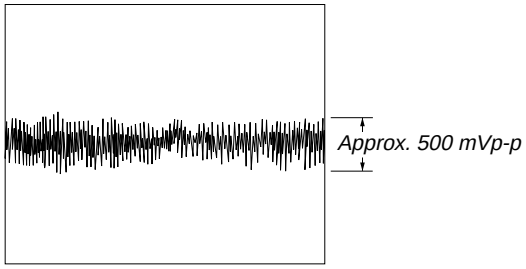
• Waveforms

– BD Section –

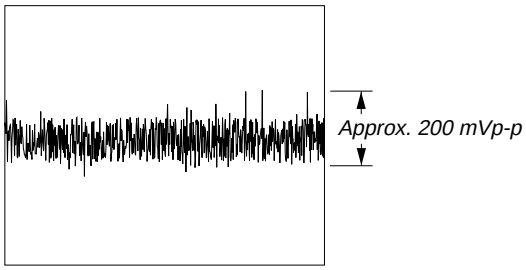
❶ IC101 ㉖ (RFDC) 200 mV/DIV, 500 ns/DIV



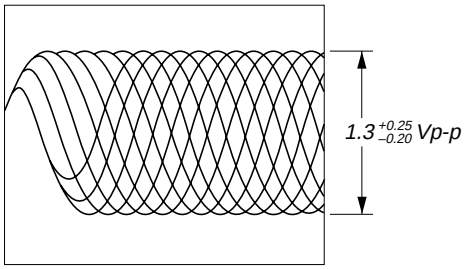
❷ IC101 ㉗ (TE) 200 mV/DIV, 100 µs/DIV



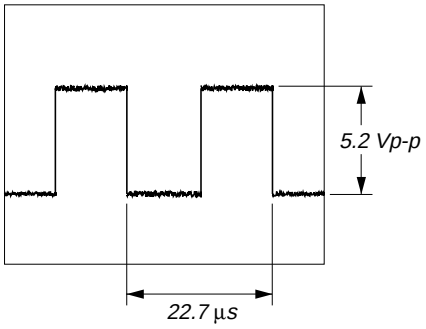
❸ IC101 ㉙ (FE) 200 mV/DIV, 50 ns/DIV



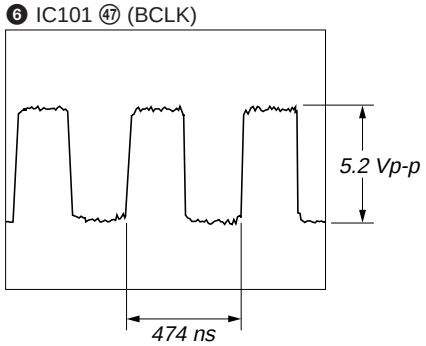
❹ IC101 ㊱ (RFAC) 200 mV/DIV, 500 ns/DIV



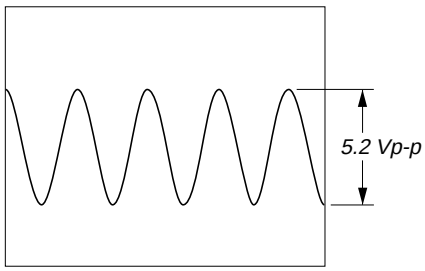
❺ IC101 ㊺ (LRCK)



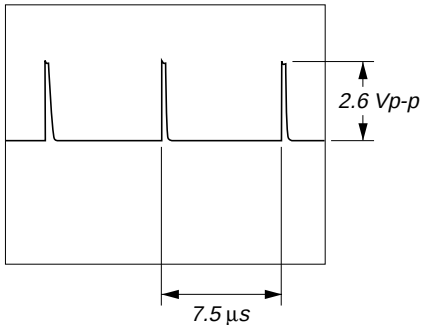
❻ IC101 ㊼ (BCLK)



❼ IC101 ㊷ (XTAI)

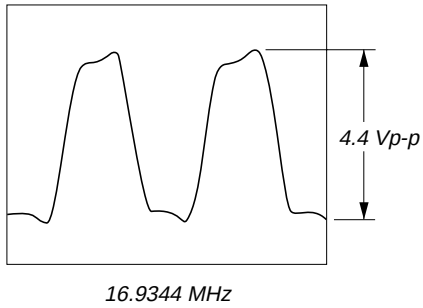


❽ IC101 ㊻ (MDP)

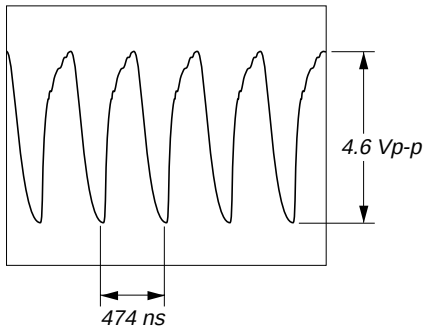


– VIDEO Section –

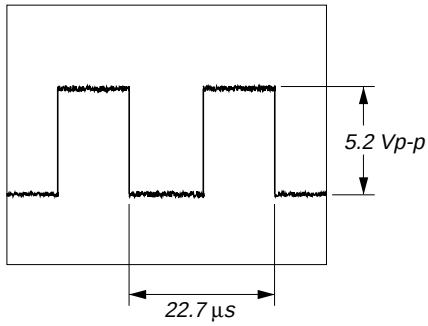
❶ IC501 ⑯ (B3 (384FS))



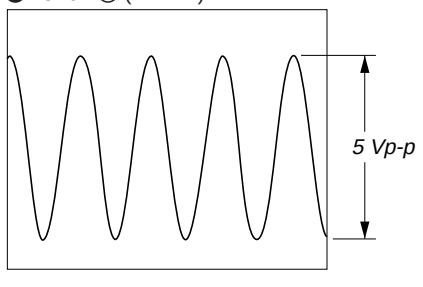
❷ IC501 ⑨ (A8 (BCLK))



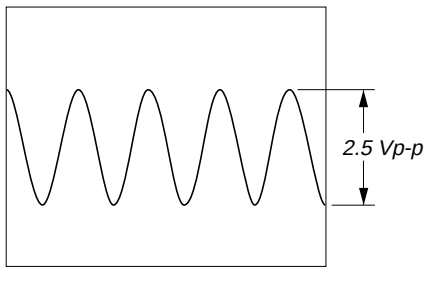
❸ IC501 ⑦ (A6 (LRCK))



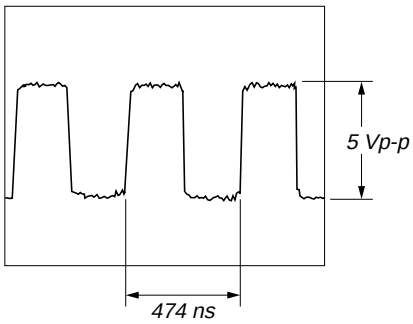
❹ IC701 ㊶ (EXTAL)



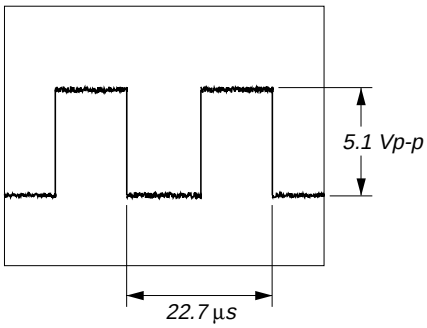
❺ IC201 ② (XTL0O)



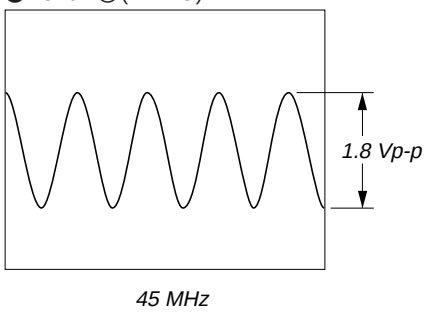
❻ IC201 ⑫ (BCKI)



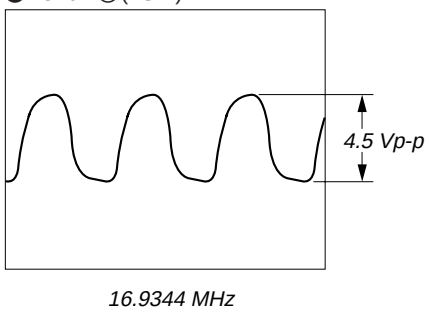
❼ IC201 ⑪ (LRCI)



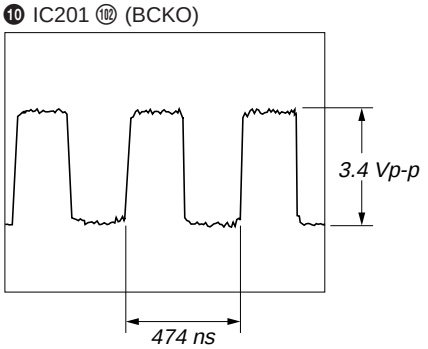
❽ IC201 ⑯ (XTL2O)



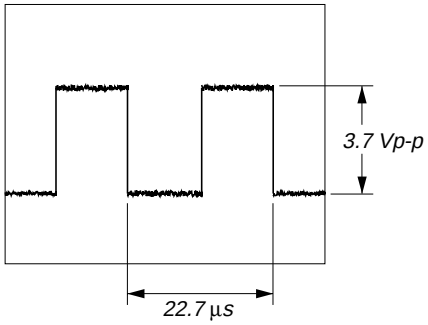
❾ IC201 ⑱ (FSXI)



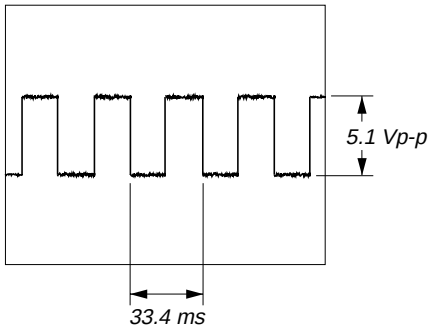
❿ IC201 ⑫ (BCKO)



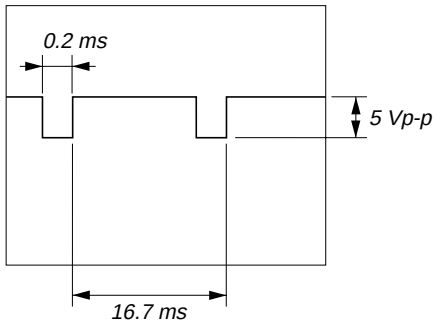
⓫ IC201 ⑪ (LRCO)



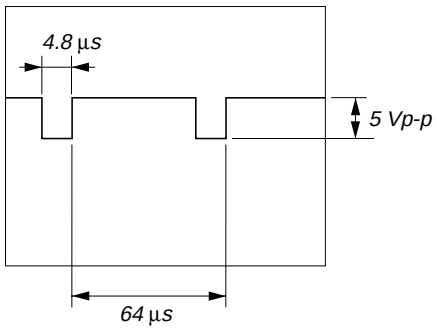
⓬ IC201 ㊹ (FID/FHREF),
IC401 ㊷ (FID)



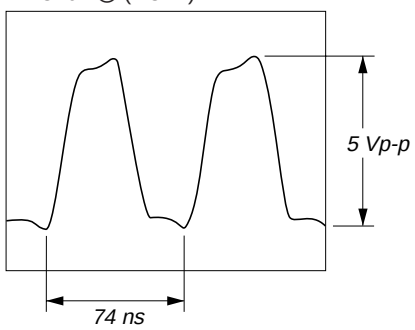
⓭ IC201 ㊸, IC271 ⑲, IC301 ㊼,
IC401 ㊾ (VSYNC)



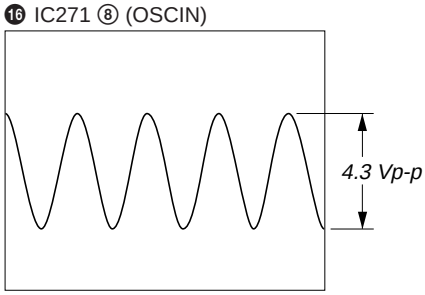
⓮ IC201 ㊷, IC271 ⑳, IC301 ㊽,
IC401 ㊿ (HSYNC)



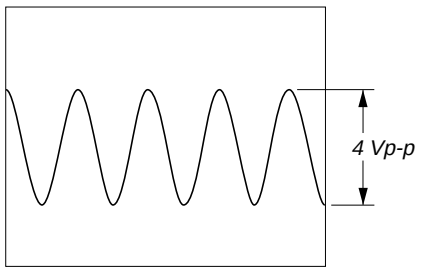
⓯ IC201 ㊾, IC301 ㊿,
IC401 ㊼ (DCLK)



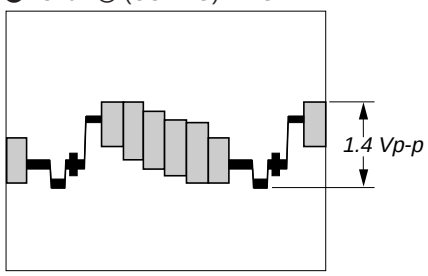
⓰ IC271 ⑧ (OSCIN)



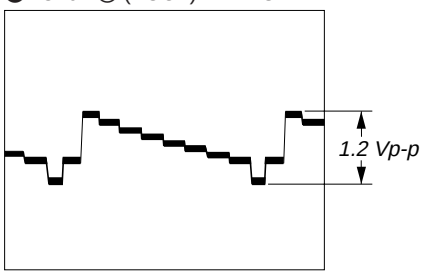
⓱ IC402 ⑥ (SYSCLK)



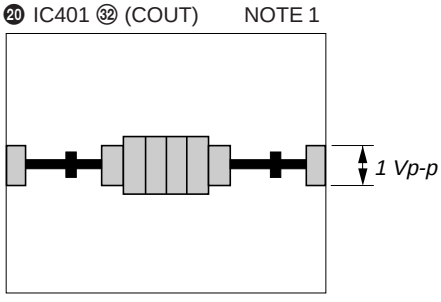
⓲ IC401 ㉔ (COMPO) NOTE 1



⓳ IC401 ㉙ (YOUT) NOTE 1



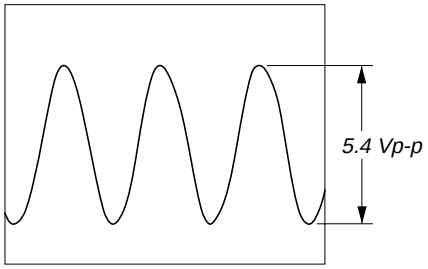
⓴ IC401 ㉜ (COUT) NOTE 1



– MAIN Section –

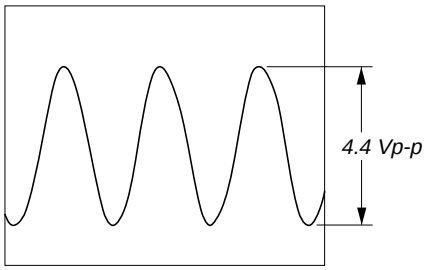
– PANEL Section –

㉑ IC901 ⑩ (X2)



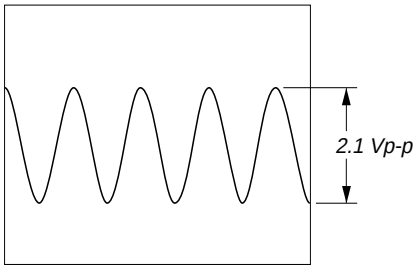
5 MHz

❶ IC301 ⑪ (X1)



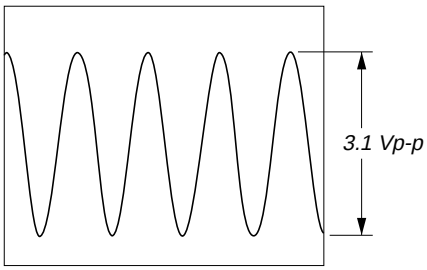
5 MHz

❶ IC601 ⑧ (X-OUT)



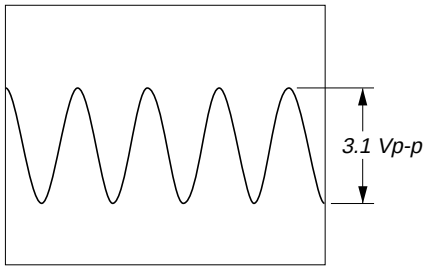
8 MHz

㉒ IC101 ⑥ (384FSO)



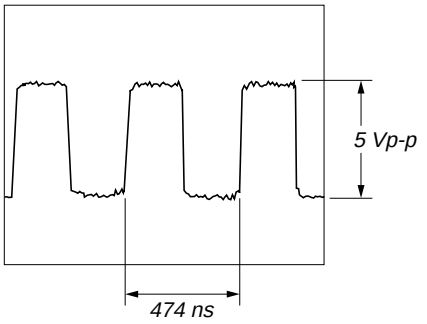
16.9344 MHz

❷ IC301 ⑭ (XT1)

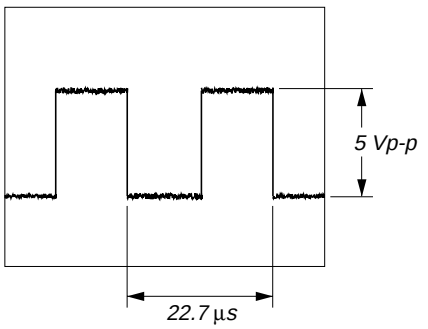


32.768 kHz

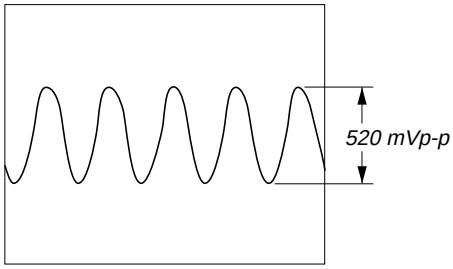
㉓ IC101 ⑩ (BCK)



㉔ IC101 ⑫ (LRCK)



㉕ IC101 ㉒ (XIN)



Note:

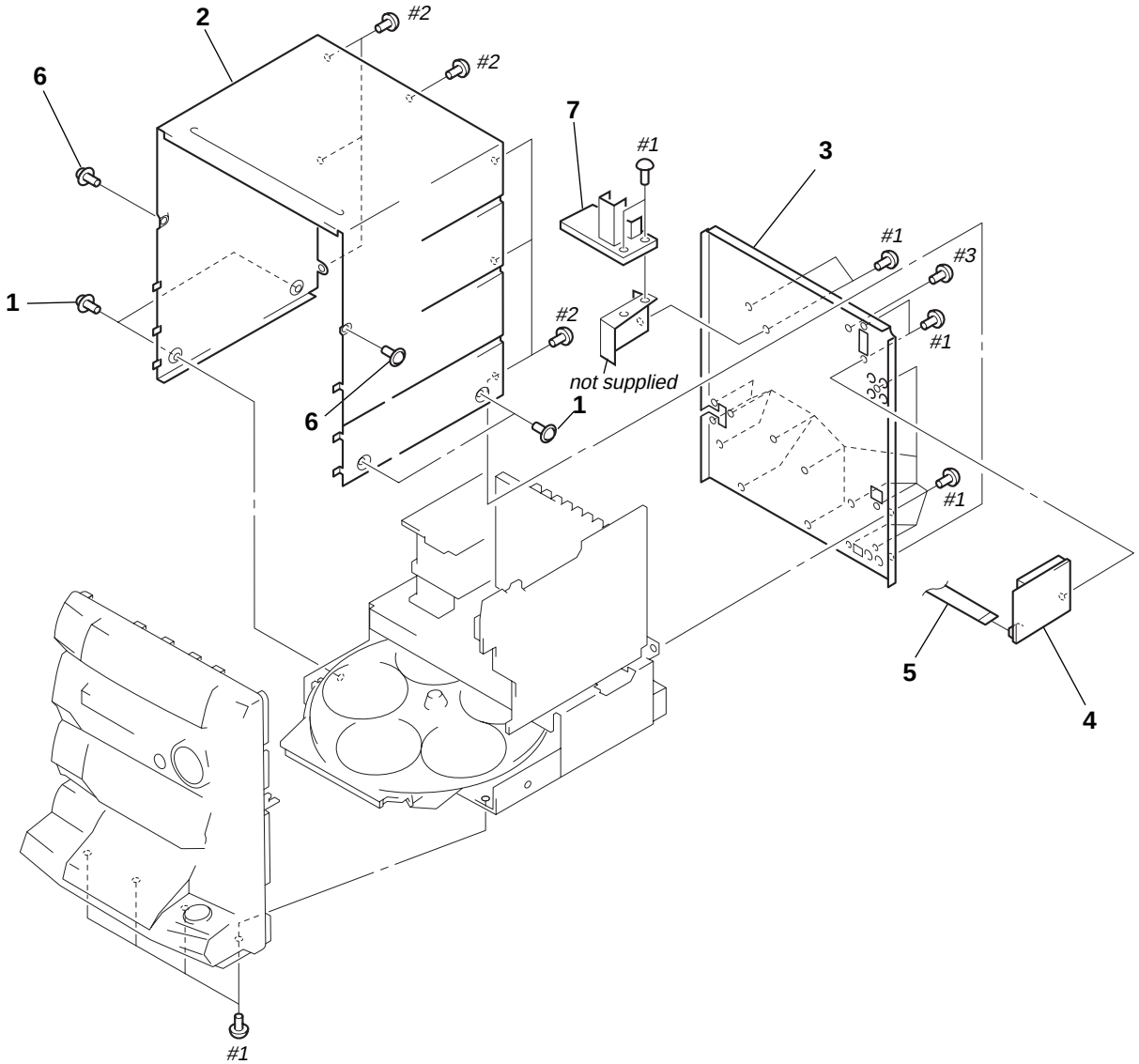
1. When pin ㊾ (TEST0) of IC701 (mechanism controller) on the VIDEO board is connected to ground. (A solder bridge of SL701 is shorted.)

SECTION 7
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation
  CH : Chinese SP : Singapore
  IA : Indonesia TH : Thai
  MY : Malaysia
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of the electrical parts list.

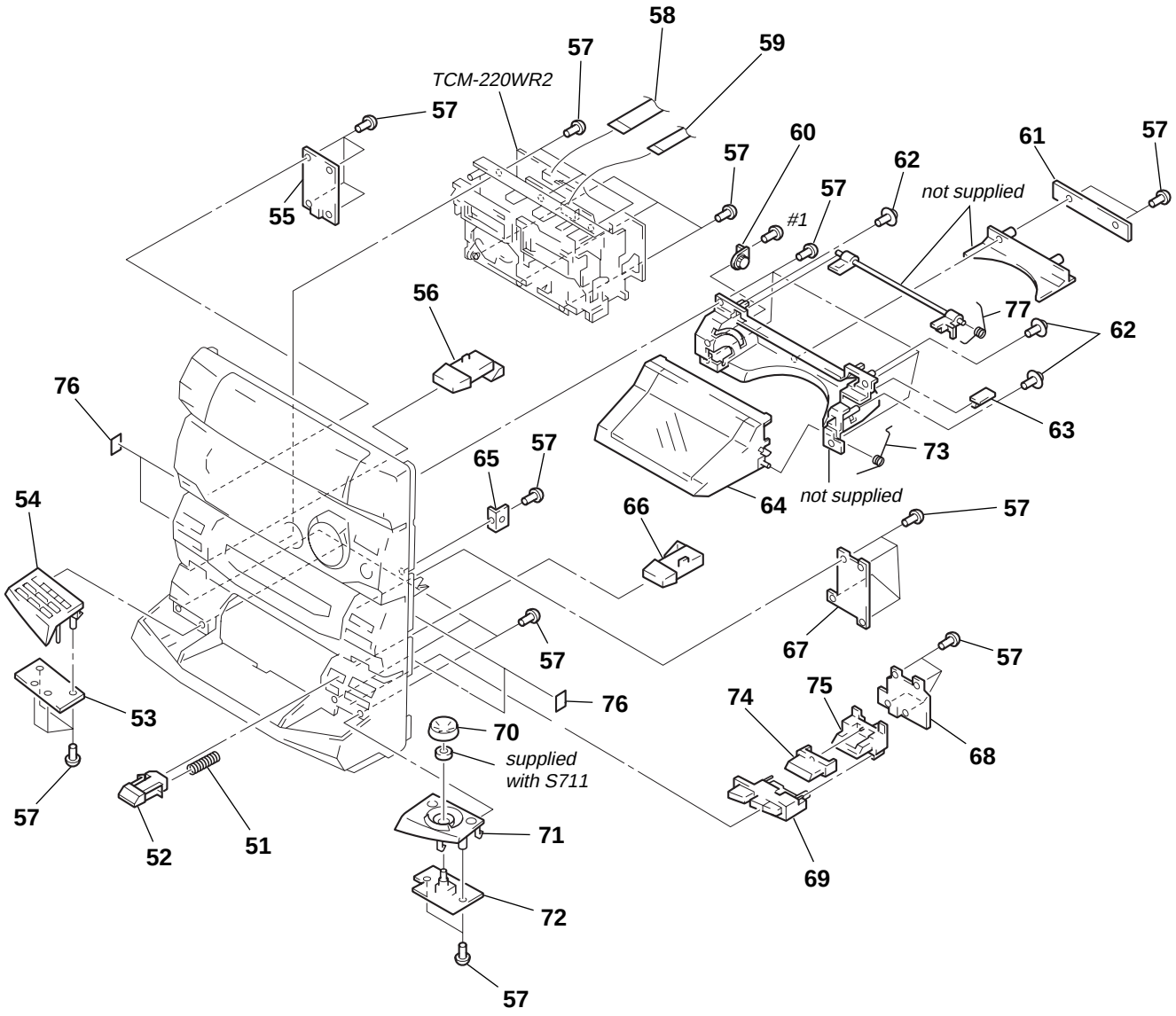
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

(1) CASE, REAR PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-929-973-01	SCREW (CASE, 3 POINT)	
* 2	4-987-052-11	CASE	
* 3	4-992-219-01	PANEL, BACK (SP)	
* 3	4-992-219-11	PANEL, BACK (MY, TH)	
* 3	4-992-219-21	PANEL, BACK (CH)	
* 3	4-992-219-31	PANEL, BACK (IA)	
4	1-233-545-11	ENCAPSULATED COMPONENT (FM/AM TUNER UNIT)	
5	1-769-974-11	WIRE (FLAT TYPE) (13 CORE) (120mm)	
6	3-363-099-01	SCREW (CASE 3 TP2)	
* 7	1-666-126-11	VIDEO POWER BOARD	

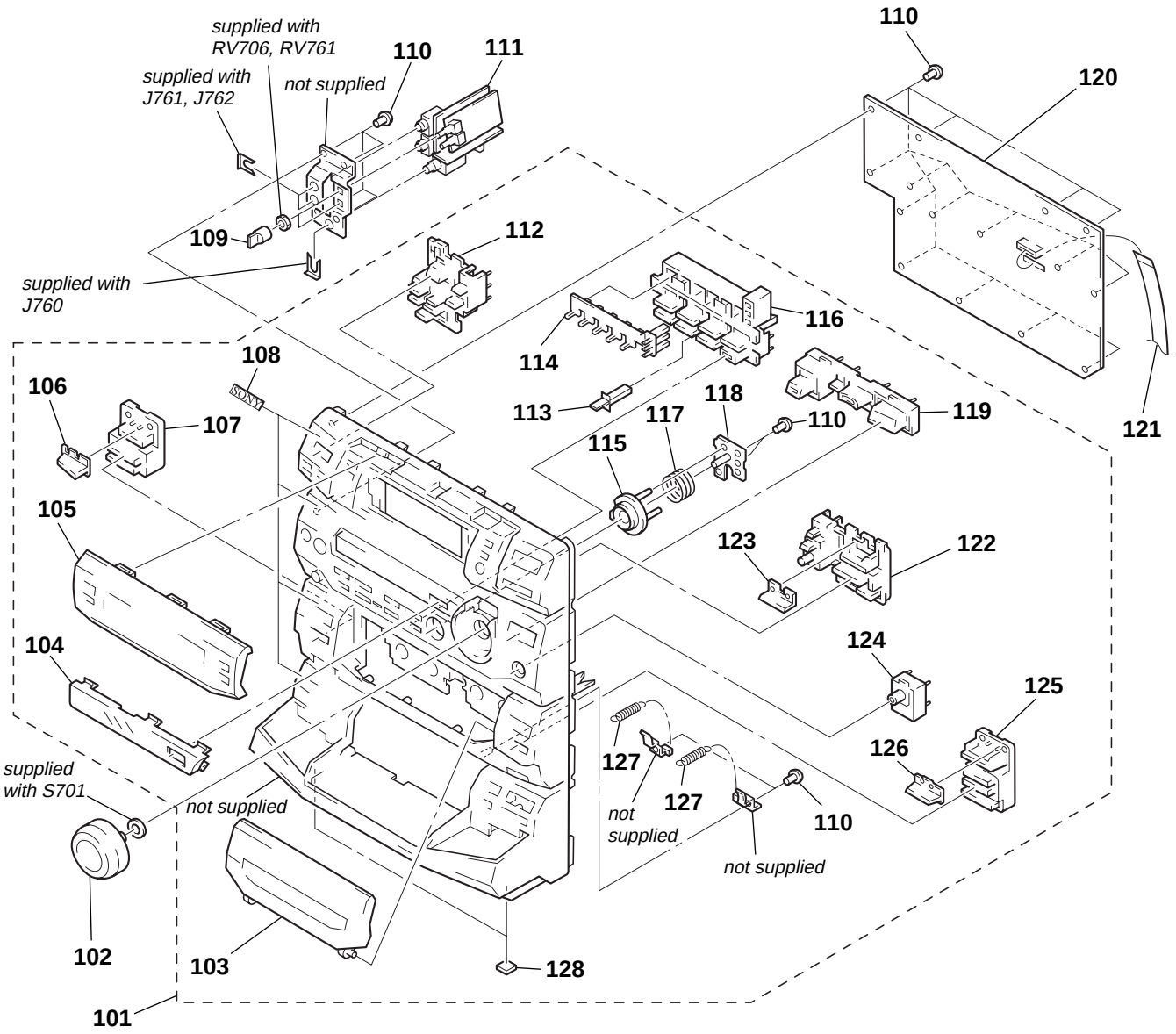
(2) FRONT PANEL SECTION-1



Ref. No.	Part No.	Description	Remark
51	4-987-995-01	SPRING (CD EJECT), COMPRESSION	
52	4-987-001-01	BUTTON (EJECT CD)	
* 53	1-664-009-11	CD-A SW BOARD	
54	X-4948-663-1	PANEL (A) SUB ASSY	
* 55	1-664-012-11	TC-A SW BOARD	
56	4-986-999-01	BUTTON (EJECT A) (⏏ EJECT)	
57	4-951-620-01	SCREW (2.6X8), +BVTP	
58	1-773-161-11	WIRE (FLAT TYPE) (21 CORE)	
59	1-769-949-11	WIRE (FLAT TYPE) (11 CORE)	
60	3-354-963-01	DAMPER	
* 61	1-664-017-11	LED BOARD	
62	4-957-577-01	SCREW PTP WH (2.6X8) (DIA. 10)	
* 63	1-664-016-11	DOOR SW BOARD	
64	4-987-038-21	LID, DISC	

Ref. No.	Part No.	Description	Remark
* 65	4-987-933-01	BRACKET (TA)	
66	4-987-000-01	BUTTON (EJECT B) (⏏ EJECT)	
* 67	1-664-013-11	TC-B SW BOARD	
* 68	1-664-010-11	CD-B1 SW BOARD	
69	X-4947-969-1	BUTTON (CD STOP) ASSY (DISK SKIP. ▮▮. ■)	
70	4-987-037-01	KNOB (JOG)	
71	X-4948-296-1	PANEL (B) SUB ASSY	
* 72	1-664-011-11	CD-B2 SW BOARD	
73	4-987-997-01	SPRING (CD. LID), TORSION	
74	4-987-014-01	INDICATOR (CD)	
75	4-987-002-01	BUTTON (CD. PLAY) (▷)	
76	3-568-749-00	CUSHION, ECM	
77	4-987-998-01	SPRING (LOCK SHAFT), TORSION	

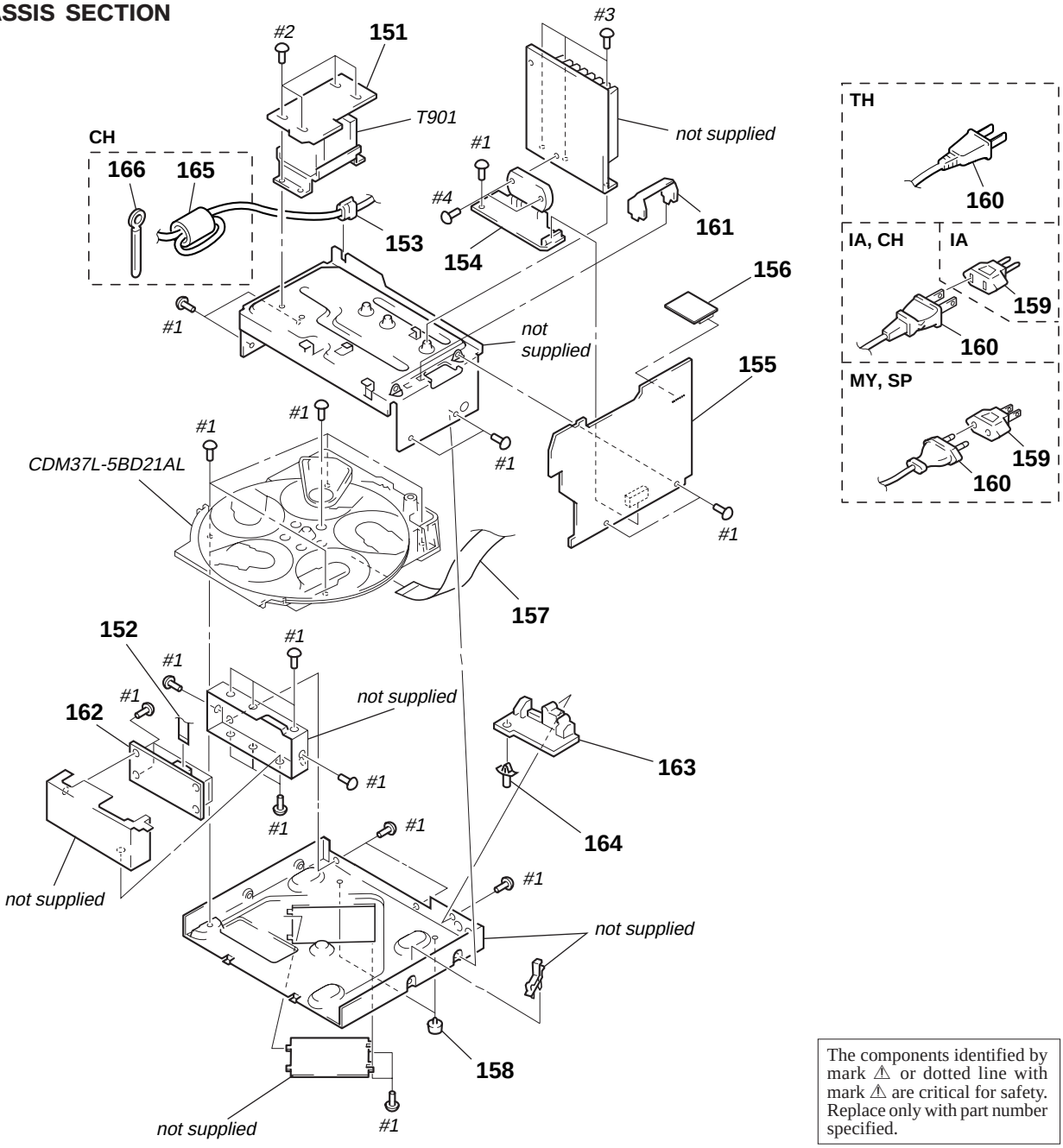
(3) FRONT PANEL SECTION-2



Ref. No.	Part No.	Description	Remark
101	A-4384-849-A	PANEL ASSY, FRONT	
102	4-987-036-01	KNOB (VOL)	
103	X-4947-961-1	LID ASSY, CASSETTE	
104	4-987-032-01	DISPLAY (TA)	
105	4-987-028-01	DISPLAY (ST)	
106	4-987-021-01	INDICATOR (TC A)	
107	4-986-997-01	BUTTON (DECK. A) (◁. ▷. ■. ◀◀. ▶▶. DIRECTION. DOLBY NR)	
108	4-963-404-21	EMBLEM (5-A), SONY	
109	4-973-644-01	KNOB (MIC)	
110	4-951-620-01	SCREW (2.6X8), +BVTP	
* 111	A-4398-651-A	HP/MIC BOARD, COMPLETE	
112	4-986-986-01	BUTTON (POWER) (POWER. ◴/CLOCK SET. REC. DAILY 1. DAILY 2. SLEEP)	
113	4-987-017-01	INDICATOR (KEY. CON)	
114	4-987-012-01	INDICATOR (TA)	
115	4-986-990-01	BUTTON (CURSOR) (GEQ)	

Ref. No.	Part No.	Description	Remark
116	X-4947-965-1	BUTTON (SOUND) ASSY (WAVE. SURROUND. P FILE MEMORY. GEQ CONTROL. KARAOKE PON/MPX. ♭. ♯)	
117	4-978-683-01	SPRING, COMPRESSION	
* 118	4-987-041-01	COVER, CURSOR	
119	X-4947-963-1	BUTTON (FUNCTION) ASSY (EFFECT. GROOVE. FUNCTION)	
* 120	A-4403-138-A	PANEL BOARD, COMPLETE	
121	1-773-051-11	WIRE (FLAT TYPE) (17 CORE)	
122	X-4947-962-1	BUTTON (TUNER) ASSY (TUNER/BAND. –. +. STEREO/MONO)	
123	4-987-013-01	INDICATOR (TUNER)	
124	X-4947-968-1	BUTTON (WOOFER) ASSY (SUPER W MODE)	
125	X-4947-967-1	BUTTON (DECK B) ASSY (◁. ▷. ■. ◀◀. ▶▶. ❚❚. ● REC. H SPEED DUB. CD SYNC)	
126	4-987-022-01	INDICATOR (TC B)	
127	4-987-996-01	SPRING (TC LID), TENSION	
128	4-948-236-01	CUSHION (107)	

(4) CHASSIS SECTION

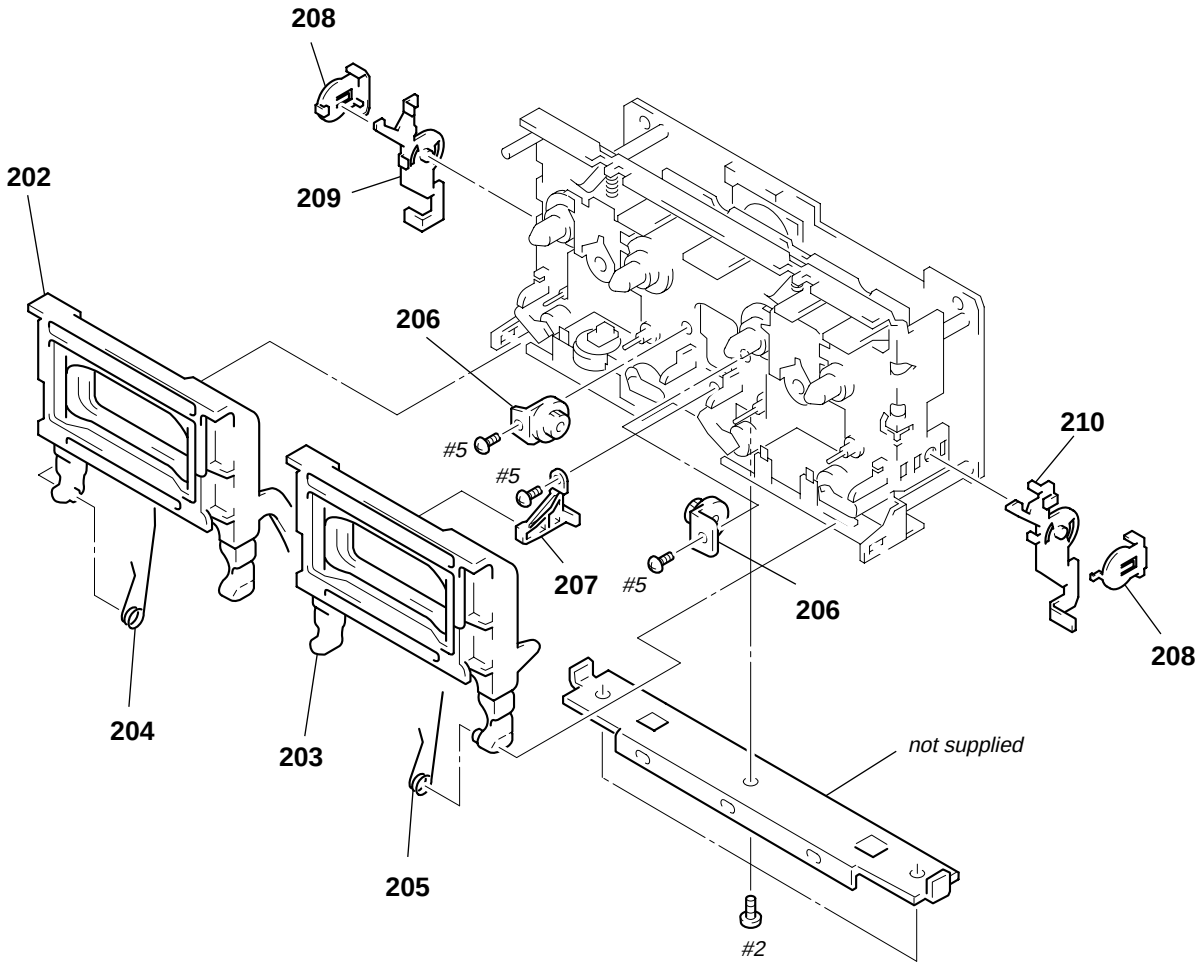


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
* 151	1-664-014-11	TRANS BOARD	
152	1-782-562-11	WIRE (FLAT TYPE) (13 CORE) (500mm)	
* 153	3-703-244-00	BUSHING (2104), CORD (MY, SP, CH)	
153	3-703-571-11	BUSHING (S) (4516), CORD (TH)	
153	4-966-266-01	BUSHING (S) (FBS002), CORD (IA)	
* 154	A-4398-968-A	POWER AMP BOARD, COMPLETE (SP, IA, CH)	
* 154	A-4403-127-A	POWER AMP BOARD, COMPLETE (MY)	
* 154	A-4403-592-A	POWER AMP BOARD, COMPLETE (TH)	
* 155	A-4398-971-A	MAIN BOARD, COMPLETE (SP, IA, CH)	
* 155	A-4403-130-A	MAIN BOARD, COMPLETE (MY)	
* 155	A-4403-595-A	MAIN BOARD, COMPLETE (TH)	
* 156	A-4398-649-A	KEY-CON BOARD, COMPLETE	
157	1-782-563-11	WIRE (FLAT TYPE) (29 CORE)	
158	X-4941-228-1	FOOT ASSY	

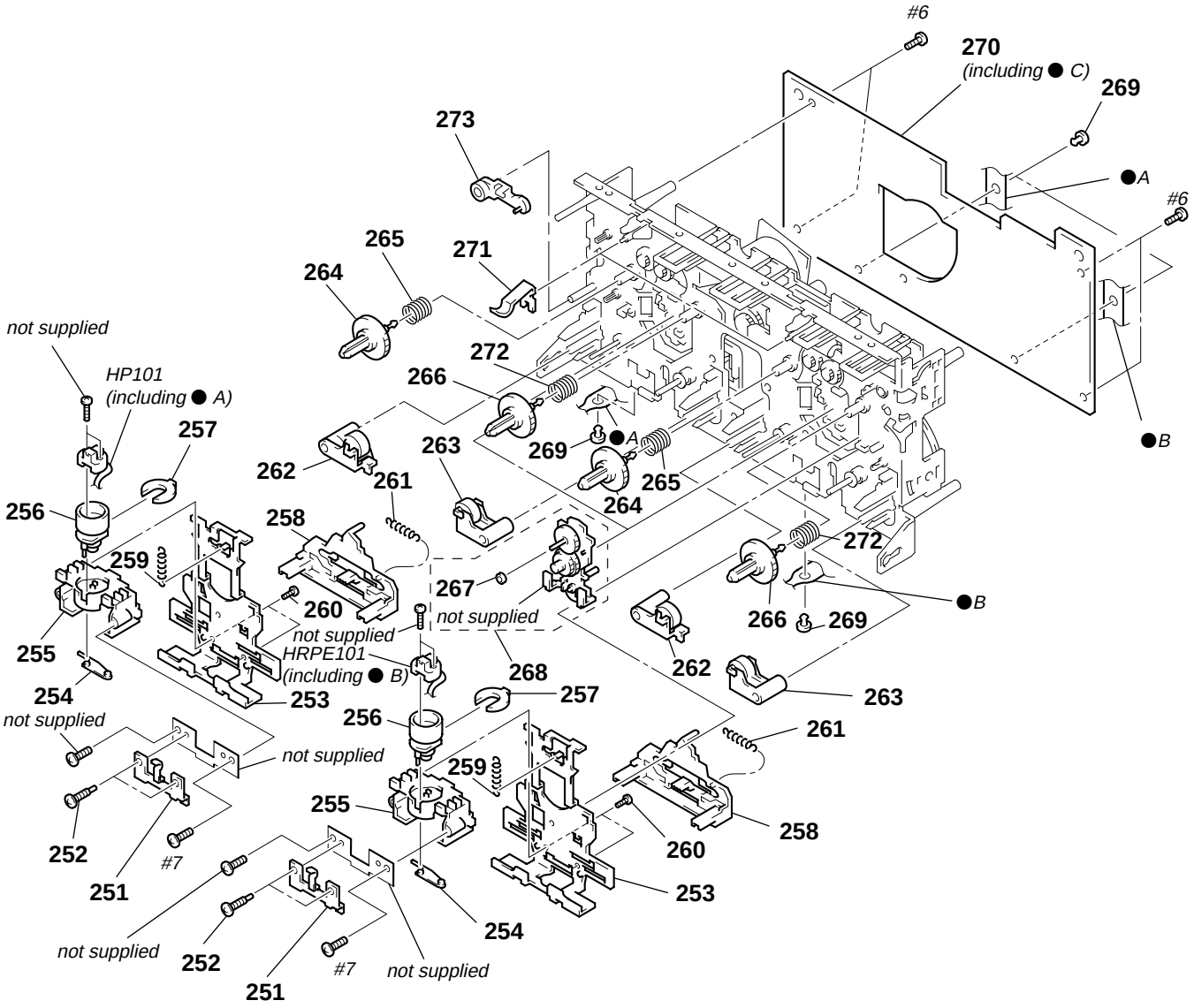
Ref. No.	Part No.	Description	Remark
⚠159	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)	
⚠159	1-569-008-11	ADAPTOR, CONVERSION 2P (MY, SP)	
⚠160	1-558-943-41	CORD, POWER (IA)	
⚠160	1-575-651-21	CORD, POWER (MY, SP)	
⚠160	1-751-326-21	CORD, POWER (TH)	
⚠160	1-782-510-11	CORD, POWER (CH)	
* 161	4-988-533-01	HOLDER, PCB	
* 162	A-4398-587-A	VIDEO BOARD, COMPLETE	
* 163	1-665-406-11	VIDEO OUT BOARD	
* 164	4-944-316-01	HOLDER, PC BOARD	
165	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
* 166	3-703-150-11	CLAMP	
⚠T901	1-431-417-11	TRANSFORMER, POWER (SP, IA, CH)	
⚠T901	1-431-417-21	TRANSFORMER, POWER (MY, TH)	

(5) TAPE MECHANISM DECK SECTION-1 (TCM-220WR2)



Ref. No.	Part No.	Description	Remark
202	X-4946-820-1	HOLDER (BL) ASSY, CASSETTE	
203	X-4946-819-1	HOLDER (BR) ASSY, CASSETTE	
204	4-959-231-11	SPRING (L), TORSION	
205	4-959-232-11	SPRING (R), TORSION	
206	3-354-963-01	DAMPER	
* 207	4-980-439-01	FULCRUM, HOLDER	
208	3-354-957-01	JOINT (LOCK LEVER)	
* 209	3-354-953-01	LEVER (LOCK LEVER L)	
* 210	3-354-954-01	LEVER (LOCK LEVER R)	

(6) TAPE MECHANISM DECK SECTION-2 (TCM-220WR2)

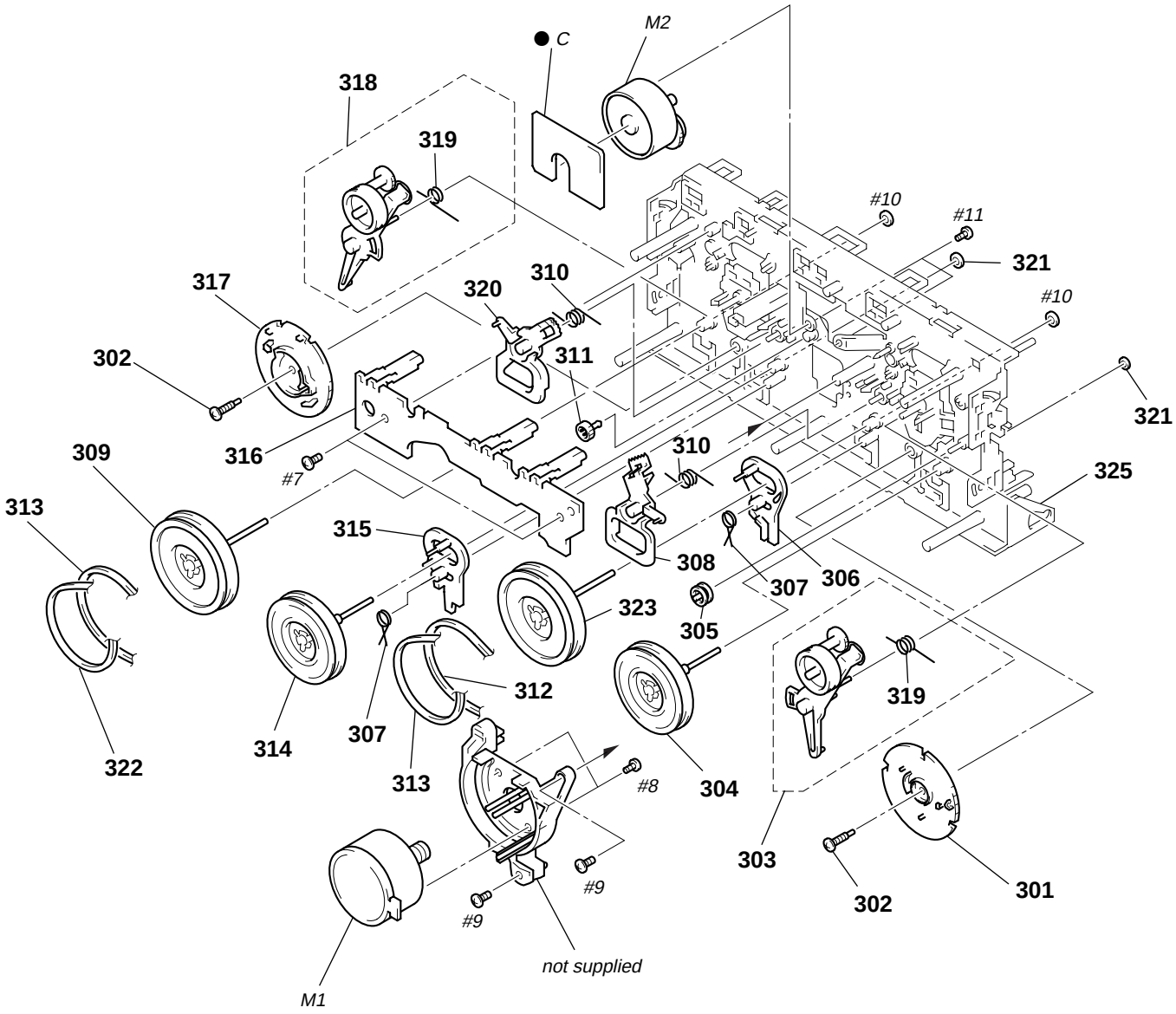


Ref. No.	Part No.	Description	Remark
251	3-908-560-01	SPRING, AZIMUTH ADJUSTMENT	
252	3-919-684-01	SCREW, AZIMUTH ADJUSTMENT	
253	X-3373-113-1	SLIDER (HEAD) ASSY	
254	3-908-556-01	SPRING, HEAD TOGGLE	
255	3-908-558-02	FITTING BLOCK, HEAD	
256	3-908-557-02	ROTARY BLOCK, HEAD	
* 257	3-908-559-01	STOPPER, AZIMUTH	
258	3-908-555-01	SLIDER (REV SLIDER)	
259	3-917-143-11	SPRING, TENSION	
260	3-388-848-01	SCREW (P2X6) (B TIGHT)	
261	3-939-371-01	SPRING (1), TENSION	
262	X-3369-909-1	PINCH LEVER (REV) ASSY	
263	X-3369-908-1	PINCH LEVER (FWD) ASSY	

Ref. No.	Part No.	Description	Remark
264	3-908-613-01	GEAR (S), REEL	
265	3-917-141-01	SPRING, COMPRESSION	
266	X-3371-305-1	REEL (T) ASSY	
267	3-669-465-01	WASHER (1.5), STOPPER	
268	X-3370-173-1	TU ASSY	
269	3-939-862-01	CLIP	
* 270	A-2007-131-A	AUDIO BOARD, COMPLETE	
271	3-930-972-01	DETENT, HALF	
272	3-917-142-01	SPRING, COMPRESSION	
273	3-938-863-01	STOPPER	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK) (DECK A)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE) (DECK B)	

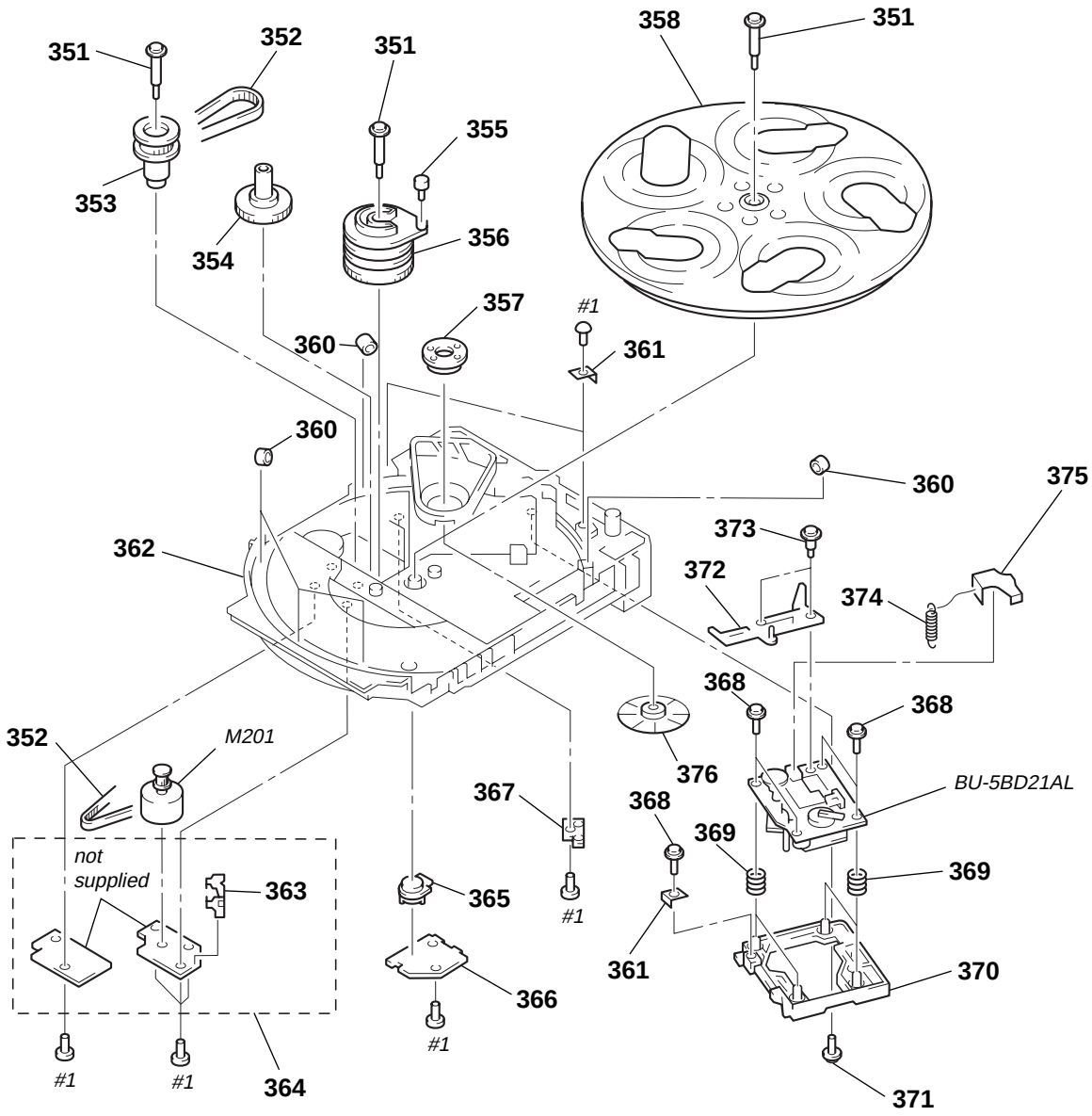
(7) TAPE MECHANISM DECK SECTION-3 (TCM-220WR2)

● C : MOTOR board (supplied with AUDIO board)



Ref. No.	Part No.	Description	Remark
301	3-908-597-01	CAM (A)	
302	3-908-608-11	SCREW, STEP	
303	X-3372-930-3	ARM (A) ASSY, FR	
304	X-3370-882-1	FLYWHEEL (AR) ASSY	
305	3-928-047-01	PULLEY, TENSION	
306	3-908-599-01	LEVER (REV-A)	
307	3-908-601-01	SPRING (REV LEVER), TORSION	
308	3-908-603-01	LEVER (TRIGGER A)	
309	X-3367-593-1	FLYWHEEL (BF) ASSY	
310	3-908-605-01	SPRING (TRIGGER), TORSION	
311	3-908-609-01	GEAR, TRIGGER	
312	3-913-845-11	BELT (A)	
313	3-913-846-11	BELT (FR)	
314	X-3370-171-1	FLYWHEEL (BR) ASSY	
315	3-908-600-01	LEVER (REV-B)	
* 316	1-650-669-11	LEAF SWITCH BOARD	
317	3-908-598-01	CAM (B)	
318	X-3372-931-3	ARM (B) ASSY, FR	
319	3-911-114-12	SPRING (FR), TORSION	
320	3-908-604-01	LEVER (TRIGGER B)	
321	3-911-115-01	WASHER, STOPPER	
322	3-917-176-11	BELT (B)	
323	X-3370-172-1	FLYWHEEL (AF) ASSY	
325	X-3371-441-1	CHASSIS ASSY, MECHANICAL	
M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	

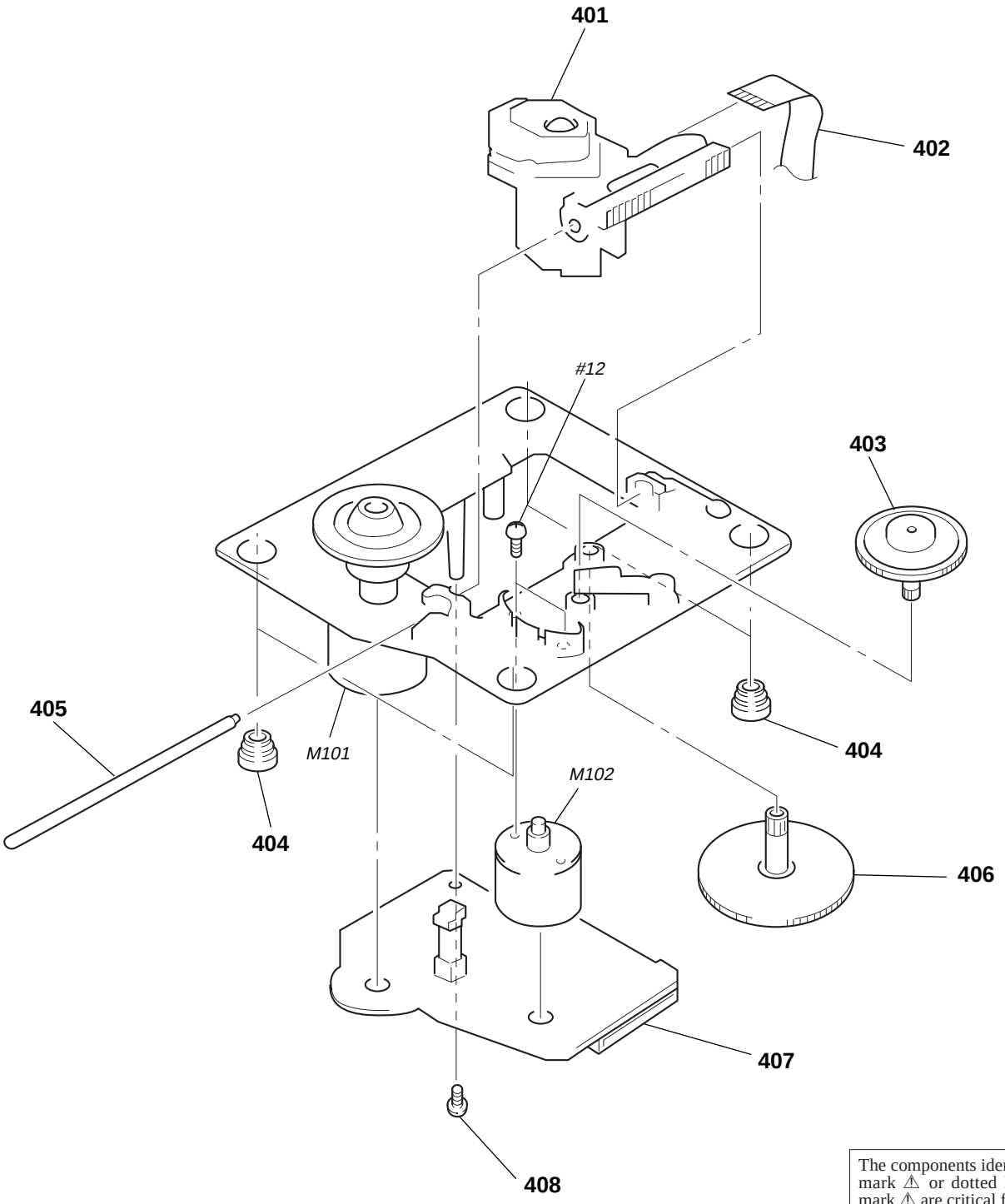
(8) CD MECHANISM DECK SECTION (CDM37L-5BD21AL)



Ref. No.	Part No.	Description	Remark
351	4-987-976-01	SCREW, STEP	
352	4-944-490-01	BELT (TIMING)	
353	A-4660-978-A	GEAR (PULLEY) ASSY	
354	4-978-421-01	GEAR (MID)	
355	4-978-425-01	ROLLER (CAM)	
356	4-978-420-01	CAM (HOLDER)	
357	1-452-925-11	MAGNET ASSY	
358	4-978-417-01	TABLE, DISC	
360	X-4947-960-1	ROLLER ASSY	
* 361	4-978-583-01	BRACKET (BU)	
* 362	4-978-418-01	CHASSIS	
* 363	4-980-385-01	HOLDER (SW)	
* 364	A-4673-765-A	CD MOTOR BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
365	4-978-426-01	INDICATOR (NO.)	
* 366	1-659-059-13	BD LED BOARD	
* 367	1-659-058-13	TABLE SENSOR BOARD	
368	4-933-134-01	SCREW (+PTPWH M2.6X6)	
369	4-958-593-01	SPRING (BU), COMPRESSION	
* 370	4-978-419-01	HOLDER (BU-5)	
371	4-917-583-71	BRACKET, YOKE	
372	4-989-493-01	SLIDER (37)	
373	4-989-494-01	SCREW (SLIDER), STEP	
374	4-989-819-01	SPRING, TENSION	
375	4-989-491-11	COVER, LENS	
376	4-994-963-01	PULLEY (LBT), PRESS	
M201	A-4660-977-A	MOTOR ASSY (TABLE)	

(9) BASE UNIT SECTION (BU-5BD21AL)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
⚠401	8-820-020-01	OPTICAL PICK-UP KSS-213D/Q-NP	
402	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
403	4-917-567-01	GEAR (M)	
404	4-951-940-01	INSULATOR (BU)	
405	4-917-565-01	SHAFT, SLED	
406	4-917-564-01	GEAR (P), FLATNESS	
* 407	A-4673-557-A	BD BOARD, COMPLETE	
408	4-951-620-01	SCREW (2.6X8), +BVTP	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	

SECTION 8
ELECTRICAL PARTS LIST

AUDIO

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  CH : Chinese SP : Singapore
  IA : Indonesia TH : Thai
  MY : Malaysia
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-2007-131-A	AUDIO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-162-289-31	CERAMIC	390PF	10%	50V
C302	1-126-968-11	ELECT	100uF	20%	6.3V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-130-483-00	MYLAR	0.01uF	5%	50V
C305	1-107-715-11	ELECT	22uF	20%	16V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C313	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-130-487-00	MYLAR	0.022uF	5%	50V
C315	1-126-233-11	ELECT	22uF	20%	50V
C331	1-137-427-11	FILM	120PF	5%	50V
C332	1-162-288-31	CERAMIC	330PF	10%	50V
C333	1-162-209-31	CERAMIC	27PF	5%	50V
C401	1-162-289-31	CERAMIC	390PF	10%	50V
C402	1-126-968-11	ELECT	100uF	20%	6.3V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-130-483-00	MYLAR	0.01uF	5%	50V
C405	1-107-715-11	ELECT	22uF	20%	16V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C413	1-162-282-31	CERAMIC	100PF	10%	50V
C414	1-130-487-00	MYLAR	0.022uF	5%	50V
C415	1-126-233-11	ELECT	22uF	20%	50V
C431	1-137-427-11	FILM	120PF	5%	50V
C432	1-162-288-31	CERAMIC	330PF	10%	50V
C433	1-162-209-31	CERAMIC	27PF	5%	50V
C601	1-104-396-11	ELECT	10uF	20%	16V
C602	1-104-396-11	ELECT	10uF	20%	16V
C611	1-124-907-11	ELECT	10uF	20%	50V
C612	1-124-907-11	ELECT	10uF	20%	50V
C621	1-137-150-11	FILM	0.01uF	5%	100V
C622	1-126-961-11	ELECT	2.2uF	20%	50V
C623	1-136-155-00	FILM	0.015uF	5%	50V
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V
C627	1-124-903-11	ELECT	1uF	20%	50V
C628	1-136-153-00	FILM	0.01uF	5%	50V
C642	1-104-664-11	ELECT	47uF	20%	16V

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
CN601	1-695-382-31	PIN, CONNECTOR (PC BOARD) 21P			
CN602	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P			
* CN651	1-564-521-11	PLUG, CONNECTOR 6P			
		< IC >			
IC601	8-759-111-44	IC uPC4570C-1			
IC602	8-759-143-54	IC uPC1330HA			
IC611	8-759-111-44	IC uPC4570C-1			
		< COIL >			
L331	1-410-780-11	INDUCTOR 27mH			
L431	1-410-780-11	INDUCTOR 27mH			
		< TRANSISTOR >			
Q621	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q622	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q623	8-729-801-93	TRANSISTOR 2SD1387			
Q651	8-729-900-65	TRANSISTOR DTA144ES			
		< RESISTOR >			
R301	1-247-881-00	CARBON	120K	5%	1/4W
R302	1-249-409-11	CARBON	220	5%	1/4W
R303	1-249-433-11	CARBON	22K	5%	1/4W
R304	1-247-889-00	CARBON	270K	5%	1/4W
R305	1-247-858-11	CARBON	13K	5%	1/4W
R311	1-247-881-00	CARBON	120K	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R314	1-247-882-11	CARBON	130K	5%	1/4W
R315	1-247-850-11	CARBON	6.2K	5%	1/4W
R331	1-249-430-11	CARBON	12K	5%	1/4W
R401	1-247-881-00	CARBON	120K	5%	1/4W
R402	1-249-409-11	CARBON	220	5%	1/4W
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-247-889-00	CARBON	270K	5%	1/4W
R405	1-247-858-11	CARBON	13K	5%	1/4W
R411	1-247-881-00	CARBON	120K	5%	1/4W
R412	1-247-807-31	CARBON	100	5%	1/4W
R414	1-247-882-11	CARBON	130K	5%	1/4W
R415	1-247-850-11	CARBON	6.2K	5%	1/4W
R431	1-249-430-11	CARBON	12K	5%	1/4W

AUDIO BD

Ref. No.	Part No.	Description				Remark
R601	1-249-409-11	CARBON	220	5%	1/4W	
R602	1-249-409-11	CARBON	220	5%	1/4W	
R608	1-249-409-11	CARBON	220	5%	1/4W	
R609	1-249-433-11	CARBON	22K	5%	1/4W	
R611	1-249-409-11	CARBON	220	5%	1/4W	
R612	1-249-409-11	CARBON	220	5%	1/4W	
⚠R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W	F
⚠R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W	F
R623	1-249-432-11	CARBON	18K	5%	1/4W	
R624	1-249-432-11	CARBON	18K	5%	1/4W	
R625	1-249-429-11	CARBON	10K	5%	1/4W	
R651	1-247-856-00	CARBON	11K	5%	1/4W	
R652	1-247-856-00	CARBON	11K	5%	1/4W	
R653	1-249-441-11	CARBON	100K	5%	1/4W	
		< VARIABLE RESISTOR >				
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K				
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K				
RV341	1-238-551-11	RES, ADJ, CARBON 220K				
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K				
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K				
RV441	1-238-551-11	RES, ADJ, CARBON 220K				
RV651	1-238-599-11	RES, ADJ, CARBON 4.7K				
RV652	1-238-599-11	RES, ADJ, CARBON 4.7K				
		< TRANSFORMER >				
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION				
**********						
*	A-4673-557-A	BD BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C105	1-104-913-11	TANTAL. CHIP	10uF	20%	16V	
C106	1-164-346-11	CERAMIC CHIP	1uF		16V	
C107	1-164-346-11	CERAMIC CHIP	1uF		16V	
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C109	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V	
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C112	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C113	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V	
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V	
C117	1-126-209-11	ELECT	100uF	20%	4V	
C118	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V	
C119	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V	
C125	1-104-913-11	TANTAL. CHIP	10uF	20%	16V	
C140	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C141	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C151	1-163-237-11	CERAMIC CHIP	27PF	5%	50V	
C153	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C154	1-164-336-11	CERAMIC CHIP	0.33uF		25V	

Ref. No.	Part No.	Description				Remark
C156	1-163-237-11	CERAMIC CHIP	27PF	5%	50V	
C157	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V	
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	
C161	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
		< CONNECTOR >				
CN101	1-774-115-11	CONNECTOR, (FFC/FPC) 29P				
CN102	1-770-014-11	CONNECTOR, FFC/FPC 16P				
		< IC >				
IC101	8-752-369-78	IC CXD2545Q				
IC102	8-759-176-09	IC BA6392FP				
IC103	8-752-072-45	IC CXA1821M-T6				
		< TRANSISTOR >				
Q101	8-729-010-08	TRANSISTOR MSB710-R				
		< RESISTOR/CHIP CONDUCTOR >				
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R102	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R105	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R107	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R108	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R109	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R110	1-216-025-00	METAL CHIP	100	5%	1/10W	
R112	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R124	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R125	1-216-033-00	METAL CHIP	220	5%	1/10W	
R126	1-216-033-00	METAL CHIP	220	5%	1/10W	
R127	1-216-033-00	METAL CHIP	220	5%	1/10W	
R131	1-216-037-00	METAL CHIP	330	5%	1/10W	
R132	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R134	1-216-049-11	METAL CHIP	1K	5%	1/10W	
R135	1-216-295-00	CONDUCTOR, CHIP (2012)				
R136	1-216-295-00	CONDUCTOR, CHIP (2012)				
R137	1-216-295-00	CONDUCTOR, CHIP (2012)				
R138	1-216-295-00	CONDUCTOR, CHIP (2012)				
R141	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R142	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W	
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W	
R146	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R147	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R148	1-216-001-00	METAL CHIP	10	5%	1/10W	
R149	1-216-003-11	METAL CHIP	12	5%	1/10W	
R158	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R160	1-216-295-00	CONDUCTOR, CHIP (2012)				
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W	
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			
**********					
*	1-659-059-13	BD LED BOARD			
		**********			
		< DIODE >			
D201	8-719-032-98	LED SEL5820A (DISC NO.)			
		< TRANSISTOR >			
Q201	8-729-119-78	TRANSISTOR 2SC403SP-51			
		< RESISTOR >			
R201	1-247-863-91	CARBON	22K	5%	1/4W
R202	1-249-411-11	CARBON	330	5%	1/4W
R203	1-249-437-11	CARBON	47K	5%	1/4W
**********					
*	A-4673-765-A	CD MOTOR BOARD, COMPLETE			
		**********			
*	4-980-385-01	HOLDER (SW)			
		< CAPACITOR >			
C201	1-124-907-11	ELECT	10uF	20%	50V
C202	1-164-159-21	CERAMIC	0.1uF		50V
C203	1-124-907-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN201	1-568-947-11	PIN, CONNECTOR 9P			
		< IC >			
IC201	8-759-365-94	IC TA8409S			
		< COIL >			
L201	1-408-117-00	INDUCTOR	10uH		
		< RESISTOR >			
R205	1-249-427-11	CARBON	6.8K	5%	1/4W
R206	1-249-425-11	CARBON	4.7K	5%	1/4W
		< SWITCH >			
S201	1-762-587-11	SWITCH, PUSH (1 KEY) (UP)			
**********					
*	1-664-009-11	CD-A SW BOARD			
		**********			
		< DIODE >			
D641	8-719-058-04	LED SEL5223S-TP15 (CD NON-STOP)			
D642	8-719-058-04	LED SEL5223S-TP15 (VCD)			
D643	8-719-058-04	LED SEL5223S-TP15 (PBC)			
D644	8-719-058-04	LED SEL5223S-TP15 (AUTO PBC)			
		< RESISTOR >			
R731	1-249-415-11	CARBON	680	5%	1/4W
R732	1-249-417-11	CARBON	1K	5%	1/4W
R733	1-249-419-11	CARBON	1.5K	5%	1/4W
R734	1-249-421-11	CARBON	2.2K	5%	1/4W
R735	1-247-843-11	CARBON	3.3K	5%	1/4W
R736	1-249-426-11	CARBON	5.6K	5%	1/4W
R737	1-249-430-11	CARBON	12K	5%	1/4W
R738	1-249-436-11	CARBON	39K	5%	1/4W
R739	1-249-430-11	CARBON	12K	5%	1/4W
R740	1-249-436-11	CARBON	39K	5%	1/4W
R741	1-247-807-31	CARBON	100	5%	1/4W
R742	1-247-807-31	CARBON	100	5%	1/4W
R743	1-247-807-31	CARBON	100	5%	1/4W
R744	1-247-807-31	CARBON	100	5%	1/4W
		< SWITCH >			
S661	1-762-751-11	SWITCH, TACTILE (DIRECT PLAY DISC 1)			
S662	1-762-751-11	SWITCH, TACTILE (DIRECT PLAY DISC 2)			
S663	1-762-751-11	SWITCH, TACTILE (DIRECT PLAY DISC 3)			
S664	1-762-751-11	SWITCH, TACTILE (DIRECT PLAY DISC 4)			
S665	1-762-751-11	SWITCH, TACTILE (DIRECT PLAY DISC 5)			
S666	1-762-751-11	SWITCH, TACTILE (DJ MIX CD FLASH)			
S667	1-762-751-11	SWITCH, TACTILE (CD NON-STOP)			
S668	1-762-751-11	SWITCH, TACTILE (DJ MIX CD LOOP)			
S669	1-762-751-11	SWITCH, TACTILE (RETURN)			
S670	1-762-751-11	SWITCH, TACTILE (PREV)			
S671	1-762-751-11	SWITCH, TACTILE (NEXT)			
**********					
*	1-664-010-11	CD-B1 SW BOARD			
		**********			
		< CONNECTOR >			
* CN642	1-568-943-11	PIN, CONNECTOR 5P			
		< DIODE >			
D645	8-719-058-03	LED SEL5423E-TP15 (▷)			
D646	8-719-057-97	LED SEL5923A-TP15 (❚❚)			
D647	8-719-058-03	LED SEL5423E-TP15 (▷)			
		< RESISTOR >			
R745	1-249-412-11	CARBON	390	5%	1/4W
R746	1-249-414-11	CARBON	560	5%	1/4W
R747	1-249-415-11	CARBON	680	5%	1/4W
R748	1-249-417-11	CARBON	1K	5%	1/4W
R749	1-247-807-31	CARBON	100	5%	1/4W
R750	1-247-807-31	CARBON	100	5%	1/4W
R751	1-247-807-31	CARBON	100	5%	1/4W
		< SWITCH >			
S676	1-762-751-11	SWITCH, TACTILE (▷)			
S677	1-762-751-11	SWITCH, TACTILE (■)			
S678	1-762-751-11	SWITCH, TACTILE (❚❚)			
S679	1-762-751-11	SWITCH, TACTILE (DISC SKIP)			
**********					

CD-B2 SW | DOOR SW | HP/MIC

Ref. No.	Part No.	Description			Remark
*	1-664-011-11	CD-B2 SW BOARD			
		**********			
		< RESISTOR >			
R752	1-249-419-11	CARBON	1.5K	5%	1/4W
R753	1-249-421-11	CARBON	2.2K	5%	1/4W
R754	1-247-843-11	CARBON	3.3K	5%	1/4W
R755	1-249-426-11	CARBON	5.6K	5%	1/4W
R756	1-249-430-11	CARBON	12K	5%	1/4W
		< SWITCH >			
S681	1-762-751-11	SWITCH, TACTILE (▶▶)			
S682	1-762-751-11	SWITCH, TACTILE (REPEAT)			
S683	1-762-751-11	SWITCH, TACTILE (PLAY MODE)			
S684	1-762-751-11	SWITCH, TACTILE (1/ALL DISCS)			
S685	1-762-751-11	SWITCH, TACTILE (EDIT)			
S686	1-762-751-11	SWITCH, TACTILE (◀◀)			
S711	1-467-968-11	ENCODER, ROTARY (⏮ AMS ⏭)			
**********					
*	1-664-016-11	DOOR SW BOARD			
		**********			
		< CAPACITOR >			
C691	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN661	1-506-481-11	PIN, CONNECTOR 2P			
		< SWITCH >			
S691	1-771-057-11	SWITCH, PUSH (1 KEY) (⏏ OPEN)			
**********					
*	A-4398-651-A	HP/MIC BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C760	1-162-306-11	CERAMIC	0.01uF	20%	16V
C761	1-126-961-11	ELECT	2.2uF	20%	50V
C762	1-162-306-11	CERAMIC	0.01uF	20%	16V
C763	1-126-961-11	ELECT	2.2uF	20%	50V
C764	1-162-294-31	CERAMIC	0.001uF	10%	50V
C765	1-162-215-31	CERAMIC	47PF	5%	50V
C766	1-162-290-31	CERAMIC	470PF	10%	50V
C767	1-162-215-31	CERAMIC	47PF	5%	50V
C768	1-126-961-11	ELECT	2.2uF	20%	50V
C769	1-162-282-31	CERAMIC	100PF	10%	50V
C770	1-126-961-11	ELECT	2.2uF	20%	50V
C771	1-126-959-11	ELECT	0.47uF	20%	50V
C773	1-126-964-11	ELECT	10uF	20%	50V
C774	1-126-964-11	ELECT	10uF	20%	50V
C775	1-162-294-31	CERAMIC	0.001uF	10%	50V
C776	1-162-294-31	CERAMIC	0.001uF	10%	50V
C777	1-126-960-11	ELECT	1uF	20%	50V
C778	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C779	1-162-294-31	CERAMIC	0.001uF	10%	50V
C780	1-136-495-11	FILM	0.068uF	5%	50V
C781	1-126-957-11	ELECT	0.22uF	20%	50V
C782	1-126-957-11	ELECT	0.22uF	20%	50V
C783	1-126-967-11	ELECT	47uF	20%	10V
C784	1-136-495-11	FILM	0.068uF	5%	50V
C785	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C786	1-162-294-31	CERAMIC	0.001uF	10%	50V
C787	1-124-250-11	ELECT	0.15uF	20%	50V
C788	1-126-960-11	ELECT	1uF	20%	50V
C789	1-161-494-00	CERAMIC	0.022uF		25V
C790	1-126-967-11	ELECT	47uF	20%	10V
C791	1-164-159-11	CERAMIC	0.1uF		50V
C794	1-164-159-11	CERAMIC	0.1uF		50V
C795	1-164-159-11	CERAMIC	0.1uF		50V
C798	1-164-159-11	CERAMIC	0.1uF		50V
C799	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
* CN701	1-568-935-11	PIN, CONNECTOR 8P			
		< DIODE >			
D761	8-719-024-99	DIODE 11ES2-NTA2B			
D762	8-719-024-99	DIODE 11ES2-NTA2B			
D763	8-719-024-99	DIODE 11ES2-NTA2B			
		< IC >			
IC760	8-759-634-51	IC M5218AP			
IC761	8-759-450-96	IC M65850P			
		< JACK >			
J760	1-770-226-41	JACK (LARGE TYPE) (PHONES)			
J761	1-770-226-41	JACK (LARGE TYPE) (MIC 1)			
J762	1-770-226-41	JACK (LARGE TYPE) (MIC 2)			
		< COIL >			
L761	1-410-521-11	INDUCTOR	100uH		
		< LEAD WITH CONNECTOR >			
* LP2	1-690-880-21	LEAD (WITH CONNECTOR)			
		< RESISTOR >			
R760	1-249-429-11	CARBON	10K	5%	1/4W
R761	1-249-417-11	CARBON	1K	5%	1/4W
R762	1-249-429-11	CARBON	10K	5%	1/4W
R763	1-249-417-11	CARBON	1K	5%	1/4W
R764	1-249-441-11	CARBON	100K	5%	1/4W
R765	1-249-417-11	CARBON	1K	5%	1/4W
R766	1-249-437-11	CARBON	47K	5%	1/4W
R767	1-249-429-11	CARBON	10K	5%	1/4W
R768	1-249-431-11	CARBON	15K	5%	1/4W
R769	1-247-885-00	CARBON	180K	5%	1/4W
R770	1-247-807-31	CARBON	100	5%	1/4W
R771	1-249-433-11	CARBON	22K	5%	1/4W
R772	1-249-433-11	CARBON	22K	5%	1/4W
R773	1-249-433-11	CARBON	22K	5%	1/4W
R774	1-247-881-00	CARBON	120K	5%	1/4W
R775	1-249-433-11	CARBON	22K	5%	1/4W
R776	1-249-433-11	CARBON	22K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R777	1-249-433-11	CARBON	22K	5%	1/4W
R778	1-249-437-11	CARBON	47K	5%	1/4W
R779	1-249-431-11	CARBON	15K	5%	1/4W
		< VARIABLE RESISTOR >			
RV760	1-225-366-11	RES, VAR, CARBON 50K (MIC LEVEL)			
RV761	1-225-366-11	RES, VAR, CARBON 50K (ECHO LEVEL)			
**********					
*	A-4398-649-A	KEY-CON BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C501	1-124-584-00	ELECT	100uF	20%	10V
C502	1-164-159-11	CERAMIC	0.1uF		50V
C503	1-126-967-11	ELECT	47uF	20%	10V
C504	1-164-159-11	CERAMIC	0.1uF		50V
C505	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C506	1-162-286-31	CERAMIC	220PF	10%	50V
C507	1-162-286-31	CERAMIC	220PF	10%	50V
C508	1-136-495-11	FILM	0.068uF	5%	50V
C509	1-136-495-11	FILM	0.068uF	5%	50V
C510	1-136-495-11	FILM	0.068uF	5%	50V
C511	1-164-159-11	CERAMIC	0.1uF		50V
C512	1-162-284-31	CERAMIC	150PF	10%	50V
C513	1-136-165-00	FILM	0.1uF	5%	50V
C514	1-136-165-00	FILM	0.1uF	5%	50V
C515	1-162-294-31	CERAMIC	0.001uF	10%	50V
C516	1-162-294-31	CERAMIC	0.001uF	10%	50V
C517	1-162-294-31	CERAMIC	0.001uF	10%	50V
C518	1-162-306-11	CERAMIC	0.01uF	20%	16V
C519	1-162-294-31	CERAMIC	0.001uF	10%	50V
C520	1-126-964-11	ELECT	10uF	20%	50V
C521	1-162-291-31	CERAMIC	560PF	10%	50V
C522	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C523	1-162-290-31	CERAMIC	470PF	10%	50V
C524	1-126-964-11	ELECT	10uF	20%	50V
C525	1-126-964-11	ELECT	10uF	20%	50V
C526	1-126-964-11	ELECT	10uF	20%	50V
C527	1-126-964-11	ELECT	10uF	20%	50V
C1439	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
CN501	1-566-999-11	PIN, CONNECTOR 13P			
		< IC >			
IC501	8-759-370-84	IC M65847FP-TP			
IC502	8-759-140-53	IC uPD4053BC			
		< COIL >			
L501	1-410-521-11	INDUCTOR 100uH			
		< TRANSISTOR >			
Q501	8-729-119-78	TRANSISTOR 2SC403SP-51			
Q502	8-729-900-80	TRANSISTOR DTC114ES			

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R501	1-247-807-31	CARBON	100	5%	1/4W
R502	1-249-429-11	CARBON	10K	5%	1/4W
R503	1-247-807-31	CARBON	100	5%	1/4W
R504	1-249-425-11	CARBON	4.7K	5%	1/4W
R505	1-247-903-00	CARBON	1M	5%	1/4W
R506	1-249-429-11	CARBON	10K	5%	1/4W
R507	1-249-425-11	CARBON	4.7K	5%	1/4W
R508	1-249-429-11	CARBON	10K	5%	1/4W
R509	1-249-434-11	CARBON	27K	5%	1/4W
R510	1-249-426-11	CARBON	5.6K	5%	1/4W
R511	1-249-424-11	CARBON	3.9K	5%	1/4W
R512	1-249-431-11	CARBON	15K	5%	1/4W
R513	1-249-429-11	CARBON	10K	5%	1/4W
R514	1-249-433-11	CARBON	22K	5%	1/4W
R515	1-249-429-11	CARBON	10K	5%	1/4W
R516	1-249-441-11	CARBON	100K	5%	1/4W
R517	1-249-433-11	CARBON	22K	5%	1/4W
R518	1-249-433-11	CARBON	22K	5%	1/4W
R519	1-249-441-11	CARBON	100K	5%	1/4W
R520	1-249-441-11	CARBON	100K	5%	1/4W
R521	1-249-429-11	CARBON	10K	5%	1/4W
R522	1-249-425-11	CARBON	4.7K	5%	1/4W
R523	1-249-425-11	CARBON	4.7K	5%	1/4W
R524	1-249-429-11	CARBON	10K	5%	1/4W
R525	1-249-417-11	CARBON	1K	5%	1/4W
**********					
*	1-650-669-11	LEAF SWITCH BOARD			
		**********			
		< CONNECTOR >			
* CN1001	1-568-854-11	SOCKET, CONNECTOR 11P			
		< PHOTO REFLECTOR >			
Q1001	8-749-010-90	PHOTO REFLECTOR NJL5165KA-H2			
Q1002	8-749-010-90	PHOTO REFLECTOR NJL5165KA-H2			
		< RESISTOR >			
R1001	1-247-818-11	CARBON	300	5%	1/4W
R1002	1-247-820-11	CARBON	360	5%	1/4W
R1003	1-249-414-11	CARBON	560	5%	1/4W
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W
R1005	1-247-818-11	CARBON	300	5%	1/4W
		< SWITCH >			
S1001	1-692-832-11	SWITCH, PUSH (1 KEY) (A PLAY)			
S1002	1-692-832-11	SWITCH, PUSH (1 KEY) (B PLAY)			
S1004	1-571-281-21	SWITCH, LEAF (A HALF)			
S1005	1-571-281-21	SWITCH, LEAF (A CrO2)			
S1006	1-572-248-11	SWITCH, LEAF (REC A)			
S1007	1-572-248-11	SWITCH, LEAF (B HALF)			
S1008	1-571-281-21	SWITCH, LEAF (B CrO2)			
S1009	1-571-281-21	SWITCH, LEAF (REC B)			
**********					

LED **MAIN**

Ref. No.	Part No.	Description			Remark
*	1-664-017-11	LED BOARD			
		**********			
		< CONNECTOR >			
CN671	1-506-481-11	PIN, CONNECTOR 2P			
		< DIODE >			
D671	8-719-058-03	LED SEL5423E-TP15 (BACK LIGHT)			
D672	8-719-058-03	LED SEL5423E-TP15 (BACK LIGHT)			
D673	8-719-058-03	LED SEL5423E-TP15 (BACK LIGHT)			
D674	8-719-058-03	LED SEL5423E-TP15 (BACK LIGHT)			
		< RESISTOR >			
R791	1-249-412-11	CARBON	390	5% 1/4W	
**********					
*	A-4398-971-A	MAIN BOARD, COMPLETE (SP, IA, CH)			
*	A-4403-130-A	MAIN BOARD, COMPLETE (MY)			
*	A-4403-595-A	MAIN BOARD, COMPLETE (TH)			
		**********			
	7-685-646-79	SCREW +BVTP 3¥8 TYPE2 N-S			
		< CAPACITOR >			
C100	1-164-159-11	CERAMIC	0.1uF	50V	
C101	1-162-288-31	CERAMIC	330PF	10% 50V	
					(SP, IA, CH)
C102	1-162-282-31	CERAMIC	100PF	10% 50V	
C103	1-162-282-31	CERAMIC	100PF	10% 50V	
C104	1-126-962-11	ELECT	3.3uF	20% 50V	
C105	1-162-600-11	CERAMIC	0.0047uF	30% 16V	
C106	1-162-301-11	CERAMIC	0.0015uF	30% 16V	
C107	1-126-956-91	ELECT	0.1uF	20% 50V	
C108	1-126-967-11	ELECT	47uF	20% 10V	
					(SP, IA, CH)
C121	1-162-286-31	CERAMIC	220PF	10% 50V	
C122	1-162-286-31	CERAMIC	220PF	10% 50V	
C123	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C131	1-136-495-11	FILM	0.068uF	5% 50V	
					(SP, IA, CH)
C132	1-136-495-11	FILM	0.068uF	5% 50V	
					(SP, IA, CH)
C151	1-162-288-31	CERAMIC	330PF	10% 50V	
					(SP, IA, CH)
C152	1-162-282-31	CERAMIC	100PF	10% 50V	
C153	1-162-282-31	CERAMIC	100PF	10% 50V	
C154	1-126-962-11	ELECT	3.3uF	20% 50V	
C155	1-162-600-11	CERAMIC	0.0047uF	30% 16V	
C156	1-162-301-11	CERAMIC	0.0015uF	30% 16V	
C157	1-126-956-91	ELECT	0.1uF	20% 50V	
C158	1-126-967-11	ELECT	47uF	20% 10V	
					(SP, IA, CH)
C171	1-162-286-31	CERAMIC	220PF	10% 50V	
C172	1-162-286-31	CERAMIC	220PF	10% 50V	
C173	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C181	1-136-495-11	FILM	0.068uF	5% 50V	
					(SP, IA, CH)
C182	1-136-495-11	FILM	0.068uF	5% 50V	
					(SP, IA, CH)
C201	1-136-167-00	FILM	0.15uF	5% 50V	

Ref. No.	Part No.	Description			Remark
C202	1-136-167-00	FILM	0.15uF	5% 50V	
C203	1-130-493-00	MYLAR	0.068uF	5% 50V	
C204	1-130-493-00	MYLAR	0.068uF	5% 50V	
C205	1-130-486-00	MYLAR	0.018uF	10% 50V	
C206	1-130-486-00	MYLAR	0.018uF	10% 50V	
C207	1-130-480-00	MYLAR	0.0056uF	5% 50V	
C208	1-130-479-00	MYLAR	0.0047uF	5% 50V	
C209	1-130-474-00	MYLAR	0.0018uF	5% 50V	
C210	1-126-964-11	ELECT	10uF	20% 50V	
C211	1-126-964-11	ELECT	10uF	20% 50V	
C212	1-130-483-00	MYLAR	0.01uF	5% 50V	
C213	1-136-171-00	FILM	0.33uF	5% 50V	
C214	1-136-171-00	FILM	0.33uF	5% 50V	
C215	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C216	1-136-167-00	FILM	0.15uF	5% 50V	
C221	1-126-967-11	ELECT	47uF	20% 10V	
C222	1-126-967-11	ELECT	47uF	20% 10V	
C223	1-126-964-11	ELECT	10uF	20% 50V	
C224	1-162-290-31	CERAMIC	470PF	10% 50V	
C226	1-126-964-11	ELECT	10uF	20% 50V	
C227	1-164-159-11	CERAMIC	0.1uF	50V	
C231	1-109-889-11	ELECT	1uF	20% 50V	
C251	1-136-167-00	FILM	0.15uF	5% 50V	
C252	1-136-167-00	FILM	0.15uF	5% 50V	
C253	1-130-493-00	MYLAR	0.068uF	5% 50V	
C254	1-130-493-00	MYLAR	0.068uF	5% 50V	
C255	1-130-486-00	MYLAR	0.018uF	10% 50V	
C256	1-130-486-00	MYLAR	0.018uF	10% 50V	
C257	1-130-480-00	MYLAR	0.0056uF	5% 50V	
C258	1-130-479-00	MYLAR	0.0047uF	5% 50V	
C259	1-130-474-00	MYLAR	0.0018uF	5% 50V	
C260	1-126-964-11	ELECT	10uF	20% 50V	
C261	1-126-964-11	ELECT	10uF	20% 50V	
C262	1-130-483-00	MYLAR	0.01uF	5% 50V	
C263	1-136-171-00	FILM	0.33uF	5% 50V	
C264	1-136-171-00	FILM	0.33uF	5% 50V	
C276	1-126-964-11	ELECT	10uF	20% 50V	
C281	1-126-933-11	ELECT	100uF	20% 10V	
C282	1-126-961-11	ELECT	2.2uF	20% 50V	
C283	1-126-933-11	ELECT	100uF	20% 10V	
C284	1-126-923-11	ELECT	220uF	20% 10V	
C291	1-126-959-11	ELECT	0.47uF	20% 50V	
C301	1-126-967-11	ELECT	47uF	20% 10V	
C302	1-164-159-11	CERAMIC	0.1uF	50V	
C303	1-136-173-00	FILM	0.47uF	5% 50V	
C304	1-126-926-11	ELECT	1000uF	20% 10V	
C305	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C309	1-102-514-11	CERAMIC	22PF	5% 50V	
C310	1-102-514-11	CERAMIC	22PF	5% 50V	
C311	1-164-159-11	CERAMIC	0.1uF	50V	
C315	1-126-933-11	ELECT	100uF	20% 10V	
C316	1-136-165-00	FILM	0.1uF	5% 50V	
C393	1-126-925-11	ELECT	470uF	20% 10V	
C396	1-126-961-11	ELECT	2.2uF	20% 50V	
C398	1-126-961-11	ELECT	2.2uF	20% 50V	
C903	1-136-165-00	FILM	0.1uF	5% 50V	
C904	1-115-364-11	ELECT	22000uF	20% 16V	

Ref. No.	Part No.	Description				Remark
C906	1-126-923-11	ELECT	220uF	20%	10V	
C909	1-126-964-11	ELECT	10uF	20%	50V	
C910	1-126-933-11	ELECT	100uF	20%	10V	
C911	1-126-964-11	ELECT	10uF	20%	50V	
C912	1-126-916-11	ELECT	1000uF	20%	6.3V	
C913	1-126-943-11	ELECT	2200uF	20%	25V	
C914	1-126-767-11	ELECT	1000uF	20%	16V	
C915	1-126-967-11	ELECT	47uF	20%	16V	
C916	1-164-159-11	CERAMIC	0.1uF		50V	
C917	1-126-968-11	ELECT	100uF	20%	50V	
C918	1-126-968-11	ELECT	100uF	20%	50V	
C919	1-126-964-11	ELECT	10uF	20%	50V	
C920	1-126-947-11	ELECT	47uF	20%	35V	
C953	1-136-165-00	FILM	0.1uF	5%	50V	
C954	1-126-943-11	ELECT	2200uF	20%	25V	
C956	1-126-923-11	ELECT	220uF	20%	10V	
C1501	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C1502	1-162-290-31	CERAMIC	470PF	10%	50V	
C1503	1-164-159-11	CERAMIC	0.1uF		50V	
C1504	1-126-160-11	ELECT	1uF	20%	50V	
C1505	1-126-964-11	ELECT	10uF	20%	50V	
C1506	1-126-157-11	ELECT	10uF	20%	16V	
C1507	1-126-160-11	ELECT	1uF	20%	50V	
C1508	1-126-933-11	ELECT	100uF	20%	10V	
C1521	1-126-964-11	ELECT	10uF	20%	50V	
C1523	1-126-933-11	ELECT	100uF	20%	16V	
C1531	1-164-159-11	CERAMIC	0.1uF		50V	
C1532	1-164-159-11	CERAMIC	0.1uF		50V	
C1533	1-164-159-11	CERAMIC	0.1uF		50V	
C1534	1-126-935-11	ELECT	470uF	20%	16V	
C1551	1-130-479-00	MYLAR	0.0047uF	5%	50V	
C1552	1-162-290-31	CERAMIC	470PF	10%	50V	
C1553	1-164-159-11	CERAMIC	0.1uF		50V	
C1554	1-126-960-11	ELECT	1uF	20%	50V	
C1555	1-126-964-11	ELECT	10uF	20%	50V	
C1556	1-126-964-11	ELECT	10uF	20%	50V	
C1557	1-126-960-11	ELECT	1uF	20%	50V	
C1558	1-126-933-11	ELECT	100uF	20%	10V	
		< CONNECTOR >				
CN101	1-778-982-11	CONNECTOR, BOARD TO BOARD 13P				
* CN102	1-568-836-11	SOCKET, CONNECTOR 17P				
* CN201	1-568-832-11	SOCKET, CONNECTOR 13P				
* CN202	1-568-832-11	SOCKET, CONNECTOR 13P				
* CN203	1-568-936-11	PIN, CONNECTOR 9P				
CN205	1-568-838-11	SOCKET, CONNECTOR 21P				
* CN206	1-568-830-11	SOCKET, CONNECTOR 11P				
* CN207	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P				
		< DIODE >				
D141	8-719-987-63	DIODE 1N4148M				
D281	8-719-987-63	DIODE 1N4148M				
D291	8-719-987-63	DIODE 1N4148M				
D301	8-719-024-99	DIODE 11ES2-NTA2B				
D302	8-719-024-99	DIODE 11ES2-NTA2B				
D303	8-719-987-63	DIODE 1N4148M				
D304	8-719-987-63	DIODE 1N4148M				
D305	8-719-987-63	DIODE 1N4148M				
D306	8-719-987-63	DIODE 1N4148M				
D307	8-719-987-63	DIODE 1N4148M				
D309	8-719-987-63	DIODE 1N4148M				
D902	8-719-975-85	DIODE ERB83-004				
D903	8-719-975-85	DIODE ERB83-004				
D904	8-719-975-85	DIODE ERB83-004				
D905	8-719-975-85	DIODE ERB83-004				
D906	8-719-024-99	DIODE 11ES2-NTA2B				
D907	8-719-024-99	DIODE 11ES2-NTA2B				
D908	8-719-024-99	DIODE 11ES2-NTA2B				
D909	8-719-024-99	DIODE 11ES2-NTA2B				
D910	8-719-011-18	DIODE UZ-33BSC-TP				
D911	8-719-011-47	DIODE UZ-3.3BSB-TP				
D912	8-719-987-63	DIODE 1N4148M				
D913	8-719-024-99	DIODE 11ES2-NTA2B				
D914	8-719-024-99	DIODE 11ES2-NTA2B				
D915	8-719-001-42	DIODE UZL-11M1				
D916	8-719-987-63	DIODE 1N4148M				
D951	8-719-987-63	DIODE 1N4148M				
D952	8-719-987-63	DIODE 1N4148M				
		< GROUND PLATE >				
* ETP1	4-870-539-11	PLATE, GROUND				
		< FERRITE BEAD >				
FB302	1-412-473-21	INDUCTOR 0UH				
		< IC >				
IC101	8-759-634-50	IC M5218AL				
IC102	8-759-000-48	IC MC14052BCP				
IC201	8-759-460-02	IC M62427FP-A				
IC231	8-759-634-50	IC M5218AL				
IC281	8-759-111-68	IC uPC1237HA				
IC301	8-759-482-00	IC uPD780016YGF-015-3BA				
IC302	8-759-635-63	IC M51943BSL				
IC901	8-759-288-53	IC LA5617				
IC902	8-759-604-86	IC M5F7807L				
IC903	8-759-231-53	IC TA7805S				
IC904	8-759-231-58	IC TA7812S				
IC1501	8-759-363-21	IC HA12203NT				
IC1502	8-759-822-09	IC LB1641				
		< PIN JACK >				
J101	1-774-411-11	JACK, PIN 6P (PHONO IN, VIDEO (AUDIO) IN/OUT)				
		< COIL >				
L131	1-420-872-00	COIL, AIR-CORE (SP, IA, CH)				
L181	1-420-872-00	COIL, AIR-CORE (SP, IA, CH)				
L301	1-410-509-11	INDUCTOR 10uH				
		< TRANSISTOR >				
Q141	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q142	8-729-119-78	TRANSISTOR 2SC403SP-51				
Q201	8-729-900-36	TRANSISTOR DTC124ES				
Q202	8-729-119-78	TRANSISTOR 2SC403SP-51				
Q203	8-729-119-78	TRANSISTOR 2SC403SP-51				

MAIN

Ref. No.	Part No.	Description				Remark
Q204	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q231	8-729-900-63	TRANSISTOR	DTA124ES			
Q232	8-729-900-63	TRANSISTOR	DTA124ES			
Q251	8-729-900-36	TRANSISTOR	DTC124ES			
Q252	8-729-119-78	TRANSISTOR	2SC403SP-51			
Q253	8-729-119-78	TRANSISTOR	2SC403SP-51			
Q254	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q281	8-729-900-36	TRANSISTOR	DTC124ES			
Q282	8-729-900-63	TRANSISTOR	DTA124ES			
Q283	8-729-900-36	TRANSISTOR	DTC124ES			
Q301	8-729-119-78	TRANSISTOR	2SC403SP-51			
Q903	8-729-030-18	TRANSISTOR	2SD2525			
Q904	8-729-030-19	TRANSISTOR	2SB1640			
Q905	8-729-040-20	TRANSISTOR	RT1P137L-TP			
Q906	8-729-900-63	TRANSISTOR	DTA124ES			
Q907	8-729-119-78	TRANSISTOR	2SC403SP-51			
Q1531	8-729-801-93	TRANSISTOR	2SD1387			
Q1532	8-729-900-80	TRANSISTOR	DTC114ES			
Q1533	8-729-900-80	TRANSISTOR	DTC114ES			
Q1534	8-729-119-77	TRANSISTOR	2SA1175-FEK			
Q1535	8-729-900-80	TRANSISTOR	DTC114ES			
		< RESISTOR >				
R101	1-249-417-11	CARBON	1K	5%	1/4W	
					(SP, IA, CH)	
R102	1-249-417-11	CARBON	1K	5%	1/4W	
R103	1-249-437-11	CARBON	47K	5%	1/4W	
R104	1-249-417-11	CARBON	1K	5%	1/4W	
R105	1-247-897-11	CARBON	560K	5%	1/4W	
R106	1-249-437-11	CARBON	47K	5%	1/4W	
R107	1-249-417-11	CARBON	1K	5%	1/4W	
R108	1-249-441-11	CARBON	100K	5%	1/4W	
R109	1-260-091-11	CARBON	220	5%	1/4W	
					(SP, IA, CH)	
R121	1-249-424-11	CARBON	3.9K	5%	1/4W	
R122	1-247-887-00	CARBON	220K	5%	1/4W	
R126	1-249-417-11	CARBON	1K	5%	1/4W	
R127	1-249-441-11	CARBON	100K	5%	1/4W	
R131	1-260-076-11	CARBON	10	5%	1/2W	
					(SP, IA, CH)	
R132	1-260-076-11	CARBON	10	5%	1/2W	
					(SP, IA, CH)	
R133	1-260-091-11	CARBON	220	5%	1/2W	
R134	1-260-091-11	CARBON	220	5%	1/2W	
R140	1-249-429-11	CARBON	10K	5%	1/4W	
R141	1-249-437-11	CARBON	47K	5%	1/4W	
R142	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R147	1-216-456-00	METAL OXIDE	820	5%	2W	F
R151	1-249-417-11	CARBON	1K	5%	1/4W	
					(SP, IA, CH)	
R152	1-249-417-11	CARBON	1K	5%	1/4W	
R153	1-249-437-11	CARBON	47K	5%	1/4W	
R154	1-249-417-11	CARBON	1K	5%	1/4W	
R155	1-247-897-11	CARBON	560K	5%	1/4W	
R156	1-249-437-11	CARBON	47K	5%	1/4W	
R157	1-249-417-11	CARBON	1K	5%	1/4W	
R158	1-249-441-11	CARBON	100K	5%	1/4W	

Ref. No.	Part No.	Description			Remark
R159	1-260-091-11	CARBON	220	5%	1/4W
					(SP, IA, CH)
R171	1-249-424-11	CARBON	3.9K	5%	1/4W
R172	1-247-887-00	CARBON	220K	5%	1/4W
R176	1-249-417-11	CARBON	1K	5%	1/4W
R177	1-249-441-11	CARBON	100K	5%	1/4W
R181	1-260-076-11	CARBON	10	5%	1/2W
					(SP, IA, CH)
R182	1-260-076-11	CARBON	10	5%	1/2W
					(SP, IA, CH)
R183	1-260-091-11	CARBON	220	5%	1/2W
R184	1-260-091-11	CARBON	220	5%	1/2W
R201	1-249-429-11	CARBON	10K	5%	1/4W
R202	1-249-433-11	CARBON	22K	5%	1/4W
R203	1-249-441-11	CARBON	100K	5%	1/4W
R205	1-249-433-11	CARBON	22K	5%	1/4W
R206	1-249-421-11	CARBON	2.2K	5%	1/4W
R207	1-249-431-11	CARBON	15K	5%	1/4W
R209	1-249-441-11	CARBON	100K	5%	1/4W
R210	1-247-887-00	CARBON	220K	5%	1/4W
R211	1-247-891-00	CARBON	330K	5%	1/4W
R212	1-249-411-11	CARBON	330	5%	1/4W
R213	1-249-429-11	CARBON	10K	5%	1/4W
R214	1-249-437-11	CARBON	47K	5%	1/4W
R215	1-247-903-00	CARBON	1M	5%	1/4W
R216	1-249-429-11	CARBON	10K	5%	1/4W
R217	1-249-437-11	CARBON	47K	5%	1/4W
R222	1-249-425-11	CARBON	4.7K	5%	1/4W
R226	1-249-421-11	CARBON	2.2K	5%	1/4W
R227	1-249-441-11	CARBON	100K	5%	1/4W
R228	1-249-429-11	CARBON	10K	5%	1/4W
R231	1-249-437-11	CARBON	47K	5%	1/4W
R232	1-249-437-11	CARBON	47K	5%	1/4W
R234	1-247-886-11	CARBON	200K	5%	1/4W
R235	1-249-421-11	CARBON	2.2K	5%	1/4W
R236	1-249-441-11	CARBON	100K	5%	1/4W
R253	1-249-441-11	CARBON	100K	5%	1/4W
R257	1-249-431-11	CARBON	15K	5%	1/4W
R259	1-249-441-11	CARBON	100K	5%	1/4W
R260	1-247-887-00	CARBON	220K	5%	1/4W
R261	1-247-891-00	CARBON	330K	5%	1/4W
R262	1-249-411-11	CARBON	330	5%	1/4W
R263	1-249-429-11	CARBON	10K	5%	1/4W
R264	1-249-437-11	CARBON	47K	5%	1/4W
R265	1-247-903-00	CARBON	1M	5%	1/4W
R266	1-249-429-11	CARBON	10K	5%	1/4W
R267	1-249-437-11	CARBON	47K	5%	1/4W
R272	1-249-425-11	CARBON	4.7K	5%	1/4W
R276	1-249-421-11	CARBON	2.2K	5%	1/4W
R277	1-249-441-11	CARBON	100K	5%	1/4W
R278	1-249-429-11	CARBON	10K	5%	1/4W
R281	1-249-425-11	CARBON	4.7K	5%	1/4W
R282	1-249-425-11	CARBON	4.7K	5%	1/4W
R283	1-249-435-11	CARBON	33K	5%	1/4W
R284	1-249-397-11	CARBON	22	5%	1/4W
R285	1-249-441-11	CARBON	100K	5%	1/4W
R286	1-249-429-11	CARBON	10K	5%	1/4W
R287	1-249-427-11	CARBON	6.8K	5%	1/4W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
R288	1-249-438-11	CARBON	56K	5%	1/4W
R289	1-249-437-11	CARBON	47K	5%	1/4W
R291	1-249-433-11	CARBON	22K	5%	1/4W
R292	1-249-433-11	CARBON	22K	5%	1/4W
R293	1-247-843-11	CARBON	3.3K	5%	1/4W
R294	1-249-441-11	CARBON	100K	5%	1/4W
R295	1-247-903-00	CARBON	1M	5%	1/4W
R301	1-249-413-11	CARBON	470	5%	1/4W
R302	1-249-425-11	CARBON	4.7K	5%	1/4W
R303	1-249-437-11	CARBON	47K	5%	1/4W
R304	1-249-437-11	CARBON	47K	5%	1/4W
R305	1-249-429-11	CARBON	10K	5%	1/4W
R311	1-247-807-31	CARBON	100	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R316	1-249-429-11	CARBON	10K	5%	1/4W
R318	1-249-429-11	CARBON	10K	5%	1/4W
R319	1-249-429-11	CARBON	10K	5%	1/4W
R320	1-249-429-11	CARBON	10K	5%	1/4W
R322	1-249-425-11	CARBON	4.7K	5%	1/4W
R323	1-247-807-31	CARBON	100	5%	1/4W
R324	1-247-891-00	CARBON	330K	5%	1/4W
R325	1-247-863-91	CARBON	22K	5%	1/4W (TH)
R325	1-249-431-11	CARBON	15K	5%	1/4W (EXCEPT TH)
R326	1-249-415-11	CARBON	680	5%	1/4W (EXCEPT TH)
R326	1-249-421-11	CARBON	2.2K	5%	1/4W (TH)
R330	1-247-807-31	CARBON	100	5%	1/4W
R331	1-247-807-31	CARBON	100	5%	1/4W
R339	1-247-807-31	CARBON	100	5%	1/4W
R340	1-247-807-31	CARBON	100	5%	1/4W
R341	1-247-807-31	CARBON	100	5%	1/4W
R344	1-247-807-31	CARBON	100	5%	1/4W
R345	1-247-807-31	CARBON	100	5%	1/4W
R346	1-247-807-31	CARBON	100	5%	1/4W
R349	1-247-807-31	CARBON	100	5%	1/4W
R350	1-247-807-31	CARBON	100	5%	1/4W
R351	1-247-807-31	CARBON	100	5%	1/4W
R352	1-247-807-31	CARBON	100	5%	1/4W
R353	1-247-807-31	CARBON	100	5%	1/4W
R354	1-247-807-31	CARBON	100	5%	1/4W
R355	1-247-807-31	CARBON	100	5%	1/4W
R359	1-247-807-31	CARBON	100	5%	1/4W
R360	1-247-807-31	CARBON	100	5%	1/4W
R366	1-247-807-31	CARBON	100	5%	1/4W
R367	1-249-429-11	CARBON	10K	5%	1/4W
R368	1-247-843-11	CARBON	3.3K	5%	1/4W
R369	1-249-429-11	CARBON	10K	5%	1/4W
R382	1-249-435-11	CARBON	33K	5%	1/4W
R384	1-249-429-11	CARBON	10K	5%	1/4W
R395	1-247-807-31	CARBON	100	5%	1/4W
R396	1-249-435-11	CARBON	33K	5%	1/4W
R397	1-247-807-31	CARBON	100	5%	1/4W
R398	1-249-435-11	CARBON	33K	5%	1/4W
R417	1-249-441-11	CARBON	100K	5%	1/4W
R913	1-249-409-11	CARBON	220	5%	1/4W
R914	1-249-417-11	CARBON	1K	5%	1/4W
R915	1-249-425-11	CARBON	4.7K	5%	1/4W
R916	1-249-409-11	CARBON	220	5%	1/4W
R917	1-249-409-11	CARBON	220	5%	1/4W
R918	1-249-425-11	CARBON	4.7K	5%	1/4W
R920	1-249-417-11	CARBON	1K	5%	1/4W
R921	1-247-895-00	CARBON	470K	5%	1/4W
R951	1-249-425-11	CARBON	4.7K	5%	1/4W
R952	1-249-425-11	CARBON	4.7K	5%	1/4W
R1501	1-249-435-11	CARBON	33K	5%	1/4W
R1502	1-249-417-11	CARBON	1K	5%	1/4W
R1503	1-249-426-11	CARBON	5.6K	5%	1/4W
R1504	1-247-840-00	CARBON	2.4K	5%	1/4W
R1505	1-249-433-11	CARBON	22K	5%	1/4W
R1506	1-249-421-11	CARBON	2.2K	5%	1/4W
R1507	1-249-428-11	CARBON	8.2K	5%	1/4W
R1521	1-249-430-11	CARBON	12K	5%	1/4W
R1522	1-249-426-11	CARBON	5.6K	5%	1/4W
R1524	1-249-429-11	CARBON	10K	5%	1/4W
R1525	1-249-432-11	CARBON	18K	5%	1/4W
R1526	1-249-429-11	CARBON	10K	5%	1/4W
R1527	1-249-429-11	CARBON	10K	5%	1/4W
R1531	1-247-843-11	CARBON	3.3K	5%	1/4W
R1532	1-249-411-11	CARBON	330	5%	1/4W
R1533	1-249-427-11	CARBON	6.8K	5%	1/4W
R1534	1-249-429-11	CARBON	10K	5%	1/4W
R1535	1-249-425-11	CARBON	4.7K	5%	1/4W
R1536	1-249-425-11	CARBON	4.7K	5%	1/4W
R1541	1-249-425-11	CARBON	4.7K	5%	1/4W
R1542	1-249-425-11	CARBON	4.7K	5%	1/4W
R1543	1-249-425-11	CARBON	4.7K	5%	1/4W
R1544	1-249-417-11	CARBON	1K	5%	1/4W
R1545	1-249-437-11	CARBON	47K	5%	1/4W
R1546	1-249-437-11	CARBON	47K	5%	1/4W
R1547	1-249-437-11	CARBON	47K	5%	1/4W
R1548	1-249-437-11	CARBON	47K	5%	1/4W
R1551	1-249-433-11	CARBON	22K	5%	1/4W
R1552	1-249-417-11	CARBON	1K	5%	1/4W
R1553	1-249-426-11	CARBON	5.6K	5%	1/4W
R1554	1-247-840-00	CARBON	2.4K	5%	1/4W
R1555	1-249-433-11	CARBON	22K	5%	1/4W
R1556	1-249-421-11	CARBON	2.2K	5%	1/4W
R1557	1-249-428-11	CARBON	8.2K	5%	1/4W

< VARIABLE RESISTOR >

RV1501	1-238-598-11	RES, ADJ, CARBON 2.2K
RV1551	1-238-598-11	RES, ADJ, CARBON 2.2K

< RELAY >

RY141	1-515-920-11	RELAY (24V)

< TERMINAL >

TM131	1-537-240-31	TERMINAL BOARD (CHECKER PIN) (SPEAKER)

< VIBRATOR >

X301	1-760-489-11	VIBRATOR, CERAMIC (5MHz)
X302	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)

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MOTOR | PANEL

Ref. No.	Part No.	Description				Remark
		MOTOR BOARD				
		**********				
		(Included in AUDIO BOARD, COMPLETE)				
		< CAPACITOR >				
C651	1-161-494-00	CERAMIC	0.022uF		25V	
**********						
*	A-4403-138-A	PANEL BOARD, COMPLETE				
		**********				
*	4-978-168-01	HOLDER, FL TUBE				
		< CAPACITOR >				
C601	1-126-967-11	ELECT	47uF	20%	50V	
C602	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C603	1-126-963-11	ELECT	4.7uF	20%	50V	
C604	1-126-960-11	ELECT	1uF	20%	50V	
C606	1-126-960-11	ELECT	1uF	20%	50V	
C608	1-124-584-00	ELECT	100uF	20%	10V	
C610	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C611	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C621	1-126-957-11	ELECT	0.22uF	20%	50V	
C622	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C623	1-126-957-11	ELECT	0.22uF	20%	50V	
C624	1-136-159-00	FILM	0.033uF	5%	50V	
C625	1-162-302-11	CERAMIC	0.0022uF	20%	16V	
C626	1-126-957-11	ELECT	0.22uF	20%	50V	
C632	1-126-957-11	ELECT	0.22uF	20%	50V	
C641	1-162-286-31	CERAMIC	220PF	10%	50V	
C642	1-162-286-31	CERAMIC	220PF	10%	50V	
C643	1-162-286-31	CERAMIC	220PF	10%	50V	
C644	1-162-286-31	CERAMIC	220PF	10%	50V	
C645	1-162-286-31	CERAMIC	220PF	10%	50V	
C646	1-162-286-31	CERAMIC	220PF	10%	50V	
C647	1-162-286-31	CERAMIC	220PF	10%	50V	
C648	1-162-286-31	CERAMIC	220PF	10%	50V	
C649	1-162-286-31	CERAMIC	220PF	10%	50V	
C650	1-162-286-31	CERAMIC	220PF	10%	50V	
C651	1-162-286-31	CERAMIC	220PF	10%	50V	
C652	1-162-286-31	CERAMIC	220PF	10%	50V	
C653	1-162-286-31	CERAMIC	220PF	10%	50V	
C654	1-162-286-31	CERAMIC	220PF	10%	50V	
C655	1-162-286-31	CERAMIC	220PF	10%	50V	
C695	1-164-159-21	CERAMIC	0.1uF		50V	
C696	1-164-159-21	CERAMIC	0.1uF		50V	
C697	1-162-294-31	CERAMIC	0.001uF	10%	50V	
		< CONNECTOR >				
* CN601	1-568-836-11	SOCKET, CONNECTOR 17P				
* CN602	1-568-947-11	PIN, CONNECTOR 9P				
* CN603	1-568-944-11	PIN, CONNECTOR 6P				
* CN604	1-568-946-11	PIN, CONNECTOR 8P				
		< DIODE >				
D601	8-719-987-63	DIODE 1N4148M				
D602	8-719-987-63	DIODE 1N4148M				
D606	8-719-987-63	DIODE 1N4148M				
D607	8-719-987-63	DIODE 1N4148M				
D611	8-719-058-03	LED SEL5423E-TP15 (TUNER/BAND)				
D612	8-719-058-03	LED SEL5423E-TP15 (TUNER/BAND)				
D613	8-719-058-04	LED SEL5223S-TP15 (ENTER/NEXT)				
D614	8-719-058-04	LED SEL5223S-TP15 (GROOVE)				
D615	8-719-058-04	LED SEL5223S-TP15 (SUPER WOOFER)				
D616	8-719-058-04	LED SEL5223S-TP15 (EFFECT)				
D617	8-719-058-04	LED SEL5223S-TP15 (ENTER)				
D618	8-719-058-04	LED SEL5223S-TP15 (FILE 1)				
D619	8-719-058-04	LED SEL5223S-TP15 (FILE 2)				
D620	8-719-058-04	LED SEL5223S-TP15 (FILE 3)				
D621	8-719-058-04	LED SEL5223S-TP15 (FILE 4)				
D622	8-719-058-04	LED SEL5223S-TP15 (FILE 5)				
D623	8-719-058-04	LED SEL5223S-TP15 (P FILE)				
D624	8-719-058-04	LED SEL5223S-TP15 (MENU 2)				
D625	8-719-058-04	LED SEL5223S-TP15 (MENU 1)				
D627	8-719-058-04	LED SEL5223S-TP15 (KEY CONTROL)				
		< FERRITE BEAD >				
FB601	1-412-473-21	INDUCTOR 0UH				
		< FLUORESCENT INDICATOR TUBE >				
FL601	1-517-619-11	INDICATOR TUBE, FLUORESCENT				
		< IC >				
IC601	8-759-468-18	IC TMP87CH74-6566				
IC602	8-759-459-84	IC NJL56H400				
		< COIL >				
L601	1-410-509-11	INDUCTOR 10uH				
		< TRANSISTOR >				
Q601	8-729-119-78	TRANSISTOR 2SC403SP-51				
Q602	8-729-118-00	TRANSISTOR 2SB1116-L				
Q603	8-729-118-00	TRANSISTOR 2SB1116-L				
Q604	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q605	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q606	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q607	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q608	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q609	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q610	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q611	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q612	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q614	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q617	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q618	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q619	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q620	8-729-119-77	TRANSISTOR 2SA1175-FEK				
Q621	8-729-119-77	TRANSISTOR 2SA1175-FEK				
		< RESISTOR >				
R601	1-249-425-11	CARBON	4.7K	5%	1/4W	
R602	1-249-427-11	CARBON	6.8K	5%	1/4W	
R603	1-247-903-00	CARBON	1M	5%	1/4W	
R608	1-249-429-11	CARBON	10K	5%	1/4W	
R609	1-247-843-11	CARBON	3.3K	5%	1/4W	

Ref. No.	Part No.	Description			Remark
R610	1-247-843-11	CARBON	3.3K	5%	1/4W
R611	1-249-429-11	CARBON	10K	5%	1/4W
R612	1-249-429-11	CARBON	10K	5%	1/4W
R613	1-249-401-11	CARBON	47	5%	1/4W
R614	1-249-429-11	CARBON	10K	5%	1/4W
R615	1-249-429-11	CARBON	10K	5%	1/4W
R616	1-249-429-11	CARBON	10K	5%	1/4W
R617	1-249-429-11	CARBON	10K	5%	1/4W
R621	1-249-421-11	CARBON	2.2K	5%	1/4W
R622	1-249-437-11	CARBON	47K	5%	1/4W
R623	1-247-895-00	CARBON	470K	5%	1/4W
R624	1-249-421-11	CARBON	2.2K	5%	1/4W
R625	1-249-437-11	CARBON	47K	5%	1/4W
R626	1-247-895-00	CARBON	470K	5%	1/4W
R633	1-247-897-11	CARBON	560K	5%	1/4W
R634	1-247-897-11	CARBON	560K	5%	1/4W
R636	1-249-435-11	CARBON	33K	5%	1/4W
R637	1-247-895-00	CARBON	470K	5%	1/4W
R641	1-249-420-11	CARBON	1.8K	5%	1/4W
R642	1-249-402-11	CARBON	56	5%	1/4W
R643	1-249-403-11	CARBON	68	5%	1/4W
R644	1-247-807-31	CARBON	100	5%	1/4W
R645	1-249-406-11	CARBON	120	5%	1/4W
R646	1-249-407-11	CARBON	150	5%	1/4W
R647	1-249-409-11	CARBON	220	5%	1/4W
R648	1-249-410-11	CARBON	270	5%	1/4W
R649	1-249-412-11	CARBON	390	5%	1/4W
R650	1-249-420-11	CARBON	1.8K	5%	1/4W
R651	1-249-402-11	CARBON	56	5%	1/4W
R652	1-249-403-11	CARBON	68	5%	1/4W
R653	1-247-807-31	CARBON	100	5%	1/4W
R654	1-249-406-11	CARBON	120	5%	1/4W
R655	1-249-407-11	CARBON	150	5%	1/4W
R656	1-249-409-11	CARBON	220	5%	1/4W
R657	1-249-410-11	CARBON	270	5%	1/4W
R658	1-249-420-11	CARBON	1.8K	5%	1/4W
R659	1-249-402-11	CARBON	56	5%	1/4W
R660	1-249-403-11	CARBON	68	5%	1/4W
R661	1-247-807-31	CARBON	100	5%	1/4W
R662	1-249-420-11	CARBON	1.8K	5%	1/4W
R663	1-249-402-11	CARBON	56	5%	1/4W
R664	1-249-403-11	CARBON	68	5%	1/4W
R665	1-247-807-31	CARBON	100	5%	1/4W
R666	1-249-406-11	CARBON	120	5%	1/4W
R667	1-249-407-11	CARBON	150	5%	1/4W
R668	1-249-409-11	CARBON	220	5%	1/4W
R669	1-249-410-11	CARBON	270	5%	1/4W
R670	1-249-412-11	CARBON	390	5%	1/4W
R671	1-249-414-11	CARBON	560	5%	1/4W
R672	1-249-415-11	CARBON	680	5%	1/4W
R673	1-249-417-11	CARBON	1K	5%	1/4W
R674	1-249-419-11	CARBON	1.5K	5%	1/4W
R675	1-249-421-11	CARBON	2.2K	5%	1/4W
R676	1-247-843-11	CARBON	3.3K	5%	1/4W
R677	1-249-426-11	CARBON	5.6K	5%	1/4W
R681	1-249-429-11	CARBON	10K	5%	1/4W
R682	1-249-421-11	CARBON	2.2K	5%	1/4W
R683	1-247-887-00	CARBON	220K	5%	1/4W
R684	1-249-421-11	CARBON	2.2K	5%	1/4W
R685	1-249-409-11	CARBON	220	5%	1/4W
R686	1-247-807-31	CARBON	100	5%	1/4W
R687	1-247-807-31	CARBON	100	5%	1/4W
R688	1-247-807-31	CARBON	100	5%	1/4W
R689	1-247-807-31	CARBON	100	5%	1/4W
R690	1-247-807-31	CARBON	100	5%	1/4W
R691	1-247-807-31	CARBON	100	5%	1/4W
R692	1-247-807-31	CARBON	100	5%	1/4W
R693	1-247-807-31	CARBON	100	5%	1/4W
R694	1-247-807-31	CARBON	100	5%	1/4W
R695	1-247-807-31	CARBON	100	5%	1/4W
R696	1-247-807-31	CARBON	100	5%	1/4W
R697	1-247-807-31	CARBON	100	5%	1/4W
R698	1-247-807-31	CARBON	100	5%	1/4W
R699	1-247-807-31	CARBON	100	5%	1/4W
R700	1-247-807-31	CARBON	100	5%	1/4W
R702	1-247-807-31	CARBON	100	5%	1/4W

< SWITCH >

S601	1-762-751-11	SWITCH, TACTILE (ENTER/NEXT)
S602	1-762-751-11	SWITCH, TACTILE (TUNER MEMORY)
S603	1-762-751-11	SWITCH, TACTILE (TUNING MODE)
S604	1-762-751-11	SWITCH, TACTILE (TUNER/BAND)
S605	1-762-751-11	SWITCH, TACTILE (TUNING +)
S606	1-762-751-11	SWITCH, TACTILE (TUNING –)
S607	1-762-751-11	SWITCH, TACTILE (STEREO/MONO)
S608	1-762-751-11	SWITCH, TACTILE (FUNCTION)
S609	1-762-751-11	SWITCH, TACTILE (GROOVE)
S610	1-762-751-11	SWITCH, TACTILE (GEQ ▲)
S611	1-762-751-11	SWITCH, TACTILE (GEQ ◄)
S612	1-762-751-11	SWITCH, TACTILE (GEQ ►)
S613	1-762-751-11	SWITCH, TACTILE (GEQ ▼)
S614	1-762-751-11	SWITCH, TACTILE (SUPER WOOFER)
S615	1-762-751-11	SWITCH, TACTILE (SUPER W MODE)
S616	1-762-751-11	SWITCH, TACTILE (GEQ CONTROL)
S617	1-762-751-11	SWITCH, TACTILE (ENTER)
S618	1-762-751-11	SWITCH, TACTILE (EFFECT)
S619	1-762-751-11	SWITCH, TACTILE (SPECTRUM ANALYZER)
S620	1-762-751-11	SWITCH, TACTILE (DISPLAY/DEMO)
S621	1-762-751-11	SWITCH, TACTILE (POWER)
S622	1-762-751-11	SWITCH, TACTILE (◴ /CLOCK SET)
S623	1-762-751-11	SWITCH, TACTILE (REC)
S624	1-762-751-11	SWITCH, TACTILE (DAILY 1)
S625	1-762-751-11	SWITCH, TACTILE (DAILY 2)
S626	1-762-751-11	SWITCH, TACTILE (SLEEP)
S628	1-762-751-11	SWITCH, TACTILE (SOUND CONTROL WAVE)
S629	1-762-751-11	SWITCH, TACTILE (KARAOKE PON/MPX)
S630	1-762-751-11	SWITCH, TACTILE (SOUND CONTROL SURROUND)
S631	1-762-751-11	SWITCH, TACTILE (P FILE MEMORY)
S632	1-762-751-11	SWITCH, TACTILE (♯)
S633	1-762-751-11	SWITCH, TACTILE (♭)
S701	1-473-392-11	ENCODER, ROTARY (VOLUME)

< VIBRATOR >

X601	1-579-125-11	VIBRATOR, CERAMIC (8MHz)

****

POWER AMP | TABLE SENSOR | TC-A SW

Ref. No.	Part No.	Description				Remark
*	A-4398-968-A	POWER AMP BOARD, COMPLETE (SP, IA, CH)				
*	A-4403-127-A	POWER AMP BOARD, COMPLETE (MY)				
*	A-4403-592-A	POWER AMP BOARD, COMPLETE (TH)				
		**********				
		< CAPACITOR >				
C801	1-126-963-11	ELECT	4.7uF	20%	50V	
C802	1-162-286-31	CERAMIC	220PF	10%	50V	
C803	1-162-282-31	CERAMIC	100PF	10%	50V	
C804	1-126-967-11	ELECT	47uF	20%	10V	
C806	1-126-967-11	ELECT	47uF	20%	50V	
C807	1-128-560-11	ELECT	22uF	20%	100V	
C808	1-136-165-00	FILM	0.1uF	5%	50V	
					(SP, IA, CH)	
C809	1-128-560-11	ELECT	22uF	20%	100V	
C810	1-164-159-11	CERAMIC	0.1uF		50V	
C811	1-130-493-00	MYLAR	0.068uF	5%	50V	
C812	1-130-493-00	MYLAR	0.068uF	5%	50V	
C814	1-162-294-31	CERAMIC	1000PF	10%	50V	
					(SP, IA, CH)	
C814	1-162-306-11	CERAMIC	0.01uF	20%	16V	
					(MY, TH)	
C816	1-162-294-31	CERAMIC	1000PF	10%	50V	
					(SP, IA, CH)	
C841	1-126-925-11	ELECT	470uF	20%	10V	
C851	1-126-963-11	ELECT	4.7uF	20%	50V	
C852	1-162-286-31	CERAMIC	220PF	10%	50V	
C853	1-162-282-31	CERAMIC	100PF	10%	50V	
C854	1-126-967-11	ELECT	47uF	20%	10V	
C856	1-126-967-11	ELECT	47uF	20%	50V	
C857	1-128-560-11	ELECT	22uF	20%	100V	
C858	1-136-165-00	FILM	0.1uF	5%	50V	
					(SP, IA, CH)	
C861	1-130-493-00	MYLAR	0.068uF	5%	50V	
C862	1-130-493-00	MYLAR	0.068uF	5%	50V	
C901	1-126-974-11	ELECT	3300uF	20%	50V	
C902	1-136-165-00	FILM	0.1uF	5%	50V	
C951	1-126-974-11	ELECT	3300uF	20%	50V	
C952	1-136-165-00	FILM	0.1uF	5%	50V	
		< CONNECTOR >				
CN801	1-778-981-11	CONNECTOR, BOARD TO BOARD 13P				
		< DIODE >				
D801	8-719-815-85	DIODE 1S1585				
D841	8-719-987-63	DIODE 1N4148M				
D842	8-719-987-63	DIODE 1N4148M				
D851	8-719-815-85	DIODE 1S1585				
D901	8-719-510-68	DIODE D5SBA20F01				
		< IC >				
IC801	8-749-900-34	IC STK-4182MK2				
		< TRANSISTOR >				
Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				

Ref. No.	Part No.	Description				Remark
		< RESISTOR >				
R801	1-249-417-11	CARBON	1K	5%	1/4W	
R802	1-249-437-11	CARBON	47K	5%	1/4W	
R803	1-249-414-11	CARBON	560	5%	1/4W	
R804	1-249-437-11	CARBON	47K	5%	1/4W	
R805	1-260-105-11	CARBON	3.3K	5%	1/2W	
R806	1-260-105-11	CARBON	3.3K	5%	1/2W	
⚠R807	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠R808	1-217-156-00	WIREWOUND	0.22	10%	5W	F
R809	1-260-076-11	CARBON	10	5%	1/2W	
R811	1-249-417-11	CARBON	1K	5%	1/4W	
R812	1-249-431-11	CARBON	15K	5%	1/4W	
R813	1-249-441-11	CARBON	100K	5%	1/4W	
R814	1-260-099-11	CARBON	1K	5%	1/2W	
R816	1-260-099-11	CARBON	1K	5%	1/2W	
⚠R820	1-202-972-61	FUSIBLE	1	5%	1/4W	F
R841	1-249-429-11	CARBON	10K	5%	1/4W	
R842	1-247-883-00	CARBON	150K	5%	1/4W	
R843	1-249-421-11	CARBON	2.2K	5%	1/4W	
R844	1-249-429-11	CARBON	10K	5%	1/4W	
R851	1-249-417-11	CARBON	1K	5%	1/4W	
R852	1-249-437-11	CARBON	47K	5%	1/4W	
R853	1-249-414-11	CARBON	560	5%	1/4W	
R854	1-249-437-11	CARBON	47K	5%	1/4W	
R855	1-260-105-11	CARBON	3.3K	5%	1/2W	
R856	1-260-105-11	CARBON	3.3K	5%	1/2W	
⚠R857	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠R858	1-217-156-00	WIREWOUND	0.22	10%	5W	F
R859	1-260-076-11	CARBON	10	5%	1/2W	
R861	1-249-417-11	CARBON	1K	5%	1/4W	
R862	1-249-431-11	CARBON	15K	5%	1/4W	
R863	1-249-441-11	CARBON	100K	5%	1/4W	
**********						
*	1-659-058-13	TABLE SENSOR BOARD				
		**********				
		< PHOTO INTERRUPTER >				
IC202	8-749-924-18	PHOTO INTERRUPTER RPI-1391				
		< RESISTOR >				
R207	1-249-416-11	CARBON	820	5%	1/4W	
**********						
*	1-664-012-11	TC-A SW BOARD				
		**********				
		< CONNECTOR >				
CN612	1-506-486-11	PIN, CONNECTOR 7P				
		< DIODE >				
D631	8-719-057-10	LED LNJ301MPUJAB (▷ (DECK A))				
D632	8-719-057-10	LED LNJ301MPUJAB (◁ (DECK A))				
		< RESISTOR >				
R705	1-249-406-11	CARBON	120	5%	1/4W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description				Remark
R706	1-249-407-11	CARBON	150	5%	1/4W	
R707	1-249-409-11	CARBON	220	5%	1/4W	
R708	1-249-410-11	CARBON	270	5%	1/4W	
R709	1-249-412-11	CARBON	390	5%	1/4W	
R710	1-249-414-11	CARBON	560	5%	1/4W	
R711	1-247-807-31	CARBON	100	5%	1/4W	
R714	1-247-807-31	CARBON	100	5%	1/4W	
		< SWITCH >				
S641	1-762-751-11	SWITCH, TACTILE (▷ (DECK A))				
S642	1-762-751-11	SWITCH, TACTILE (◁ (DECK A))				
S643	1-762-751-11	SWITCH, TACTILE (■ (DECK A))				
S644	1-762-751-11	SWITCH, TACTILE (◀◀ (DECK A))				
S645	1-762-751-11	SWITCH, TACTILE (▶▶ (DECK A))				
S646	1-762-751-11	SWITCH, TACTILE (DOLBY NR)				
S647	1-762-751-11	SWITCH, TACTILE (DIRECTION)				
**********						
*	1-664-013-11	TC-B SW BOARD				
		**********				
		< DIODE >				
D635	8-719-057-10	LED LNJ301MPUJAB (◁ (DECK B))				
D636	8-719-057-10	LED LNJ301MPUJAB (▷ (DECK B))				
D637	8-719-058-17	LED LNG401NPYJA (❚❚)				
D638	8-719-057-09	LED LNJ801LPDJA (● REC)				
		< RESISTOR >				
R715	1-249-414-11	CARBON	560	5%	1/4W	
R716	1-249-415-11	CARBON	680	5%	1/4W	
R717	1-249-417-11	CARBON	1K	5%	1/4W	
R718	1-249-419-11	CARBON	1.5K	5%	1/4W	
R719	1-249-421-11	CARBON	2.2K	5%	1/4W	
R720	1-247-843-11	CARBON	3.3K	5%	1/4W	
R721	1-249-426-11	CARBON	5.6K	5%	1/4W	
R722	1-249-430-11	CARBON	12K	5%	1/4W	
R724	1-247-807-31	CARBON	100	5%	1/4W	
R725	1-247-807-31	CARBON	100	5%	1/4W	
R727	1-247-807-31	CARBON	100	5%	1/4W	
R728	1-247-807-31	CARBON	100	5%	1/4W	
		< SWITCH >				
S651	1-762-751-11	SWITCH, TACTILE (▷ (DECK B))				
S652	1-762-751-11	SWITCH, TACTILE (◁ (DECK B))				
S653	1-762-751-11	SWITCH, TACTILE (▶▶ (DECK B))				
S654	1-762-751-11	SWITCH, TACTILE (◀◀ (DECK B))				
S655	1-762-751-11	SWITCH, TACTILE (■ (DECK B))				
S656	1-762-751-11	SWITCH, TACTILE (❚❚)				
S657	1-762-751-11	SWITCH, TACTILE (● REC)				
S658	1-762-751-11	SWITCH, TACTILE (H SPEED DUB)				
S659	1-762-751-11	SWITCH, TACTILE (CD SYNC)				
**********						
*	1-664-014-11	TRANS BOARD				
		**********				
	1-533-399-31	HOLDER, FUSE				

Ref. No.	Part No.	Description				Remark
		< CAPACITOR >				
C903	1-136-177-00	CERAMIC	1uF	5%	50V	
		< CONNECTOR >				
* CN901	1-564-522-11	PLUG, CONNECTOR 7P				
* CN902	1-564-518-11	PLUG, CONNECTOR 3P				
CN903	1-774-108-11	PIN, CONNECTOR (PC BOARD) 2P				
		< FUSE >				
⚠F901	1-532-502-31	FUSE, TIME-LAG (T1.25A/250V)				
⚠F902	1-532-464-31	FUSE, TIME-LAG (T2.5A/250V) (SP, IA, CH)				
		< RESISTOR >				
⚠R901	1-219-119-81	FUSIBLE	0.1	5%	1/4W	F
⚠R902	1-219-119-81	FUSIBLE	0.1	5%	1/4W	F
⚠R903	1-219-119-81	FUSIBLE	0.1	5%	1/4W	F
⚠R904	1-219-119-81	FUSIBLE	0.1	5%	1/4W	F
		< SWITCH >				
⚠S901	1-762-753-11	SWITCH, VOLTAGE SELECTION (VOLTAGE SELECTOR) (SP, IA, CH)				
**********						
*	A-4398-587-A	VIDEO BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C101	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C102	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C103	1-163-241-11	CERAMIC CHIP	39PF	5%	50V	
C104	1-163-241-11	CERAMIC CHIP	39PF	5%	50V	
C105	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C106	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C107	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C108	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C109	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	
C121	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C122	1-163-091-00	CERAMIC CHIP	8PF		50V	
C123	1-163-091-00	CERAMIC CHIP	8PF		50V	
C124	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C125	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C126	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C127	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C128	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C129	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C151	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C152	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C153	1-163-241-11	CERAMIC CHIP	39PF	5%	50V	
C154	1-163-241-11	CERAMIC CHIP	39PF	5%	50V	
C155	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C156	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C157	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C158	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C159	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	
C181	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C201	1-126-607-11	ELECT CHIP	47uF	20%	4V	
C202	1-163-038-00	CERAMIC CHIP	0.1uF		25V	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

VIDEO

Ref. No.	Part No.	Description			Remark
C203	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C204	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C205	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C206	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C207	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C208	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C209	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C210	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C211	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C212	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C213	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C251	1-124-779-00	ELECT CHIP	10uF	20%	16V
C252	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C271	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C272	1-124-779-00	ELECT CHIP	10uF	20%	16V
C273	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C274	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C275	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C276	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C301	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C302	1-124-779-00	ELECT CHIP	10uF	20%	16V
C303	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C304	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C305	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C306	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C401	1-124-779-00	ELECT CHIP	10uF	20%	16V
C402	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C403	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C404	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C405	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C406	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C407	1-124-779-00	ELECT CHIP	10uF	20%	16V
C408	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C409	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C451	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C452	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C453	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C454	1-124-779-00	ELECT CHIP	10uF	20%	16V
C461	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C462	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C463	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C464	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C465	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C466	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C468	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C469	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C470	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C501	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C502	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C503	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C504	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C505	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C506	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C701	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C702	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C703	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C704	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C705	1-124-779-00	ELECT CHIP	10uF	20%	16V
C706	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C751	1-124-779-00	ELECT CHIP	10uF	20%	16V
C752	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C771	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C772	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C801	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C802	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C803	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C804	1-126-209-11	ELECT CHIP	100uF	20%	4V
C805	1-126-204-11	ELECT CHIP	47uF	20%	16V
C806	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C807	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C884	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C901	1-124-779-00	ELECT CHIP	10uF	20%	16V
C902	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C903	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C904	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C908	1-163-038-00	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-779-416-11	SOCKET, CONNECTOR 13P			
CN102	1-766-942-11	CONNECTOR, FFC/FPC 29P			
CN103	1-774-863-11	PIN, CONNECTOR (PC BOARD) 8P			
CN104	1-774-731-21	PIN, CONNECTOR (PC BOARD) 5P			
		< TRIMMER >			
CT401	1-141-539-11	CAP, ADJ 10PF			
		< DIODE >			
D701	8-719-018-51	LED CL-170R-CD (SELF DIAGNOSIS)			
		< GROUND PLATE >			
* EPT884	4-870-539-00	PLATE, GROUND			
		< FERRITE BEAD/CHIP CONDUCTOR >			
FB101	1-500-445-21	INDUCTOR 0UH			
FB102	1-543-961-11	BEAD, FERRITE (CHIP)			
FB103	1-543-961-11	BEAD, FERRITE (CHIP)			
FB104	1-543-961-11	BEAD, FERRITE (CHIP)			
FB105	1-543-961-11	BEAD, FERRITE (CHIP)			
FB106	1-216-295-00	CONDUCTOR, CHIP (2012)			
FB451	1-543-961-11	BEAD, FERRITE (CHIP)			
FB452	1-543-961-11	BEAD, FERRITE (CHIP)			
FB453	1-543-961-11	BEAD, FERRITE (CHIP)			
FB454	1-216-295-00	CONDUCTOR, CHIP (2012)			
FB455	1-216-295-00	CONDUCTOR, CHIP (2012)			
FB801	1-500-184-11	BEAD, FERRITE			
FB802	1-500-184-11	BEAD, FERRITE			
		< IC >			
IC101	8-759-362-47	IC CXD8567AM			
IC102	8-759-701-39	IC NJM3404AM			
IC103	8-759-701-39	IC NJM3404AM			
IC181	8-759-269-14	IC SN74HCT08ANS-E20			
IC201	8-752-389-31	IC CXD1852AQ			
IC251	8-759-368-97	IC M5M44260CTP-7S			

Ref. No.	Part No.	Description			Remark
IC271	8-759-464-23	IC BU6257FV-E2			
IC272	8-759-180-84	IC TC7W74F			
IC301	8-752-384-09	IC CXD1854Q			
IC401	8-752-380-71	IC CXD1913Q			
IC402	8-759-269-92	IC SN74HCU04ANS-E20			
IC451	8-759-262-00	IC MC14576CF			
IC452	8-759-262-00	IC MC14576CF			
IC501	8-759-926-49	IC SN74HC245ANS			
IC701	8-759-468-15	IC HD6433032SK12F			
IC751	8-759-462-71	IC HY6264ALJ-70-TR			
IC771	8-759-927-72	IC TL1591CP			
IC772	8-759-035-93	IC SC7S32F			
IC801	8-759-460-72	IC BA033FP			
IC901	8-759-467-59	IC uPD780016YGF-012-3BA			
		< COIL >			
L101	1-410-377-31	INDUCTOR CHIP 4.7uH			
L251	1-410-377-31	INDUCTOR CHIP 4.7uH			
		< TRANSISTOR >			
Q701	8-729-900-53	TRANSISTOR DTC114EK			
		< RESISTOR/CHIP CONDUCTOR >			
R101	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R102	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R103	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R104	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R105	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R106	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R107	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R108	1-216-081-00	METAL CHIP	22K	5%	1/10W
R109	1-216-073-00	METAL CHIP	10K	5%	1/10W
R110	1-216-081-00	METAL CHIP	22K	5%	1/10W
R111	1-216-081-00	METAL CHIP	22K	5%	1/10W
R121	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R122	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R123	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R124	1-216-025-00	METAL CHIP	100	5%	1/10W
R125	1-216-025-00	METAL CHIP	100	5%	1/10W
R126	1-216-025-00	METAL CHIP	100	5%	1/10W
R127	1-216-025-00	METAL CHIP	100	5%	1/10W
R128	1-216-025-00	METAL CHIP	100	5%	1/10W
R129	1-216-025-00	METAL CHIP	100	5%	1/10W
R130	1-216-041-00	METAL CHIP	470	5%	1/10W
R151	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R152	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R153	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R154	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R155	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R156	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R157	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R158	1-216-081-00	METAL CHIP	22K	5%	1/10W
R159	1-216-073-00	METAL CHIP	10K	5%	1/10W
R160	1-216-081-00	METAL CHIP	22K	5%	1/10W
R161	1-216-081-00	METAL CHIP	22K	5%	1/10W
R201	1-216-025-00	METAL CHIP	100	5%	1/10W
R203	1-216-295-00	CONDUCTOR, CHIP (2012)			
R204	1-216-025-00	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R206	1-216-295-00	CONDUCTOR, CHIP (2012)			
R207	1-216-073-00	METAL CHIP	10K	5%	1/10W
R208	1-216-073-00	METAL CHIP	10K	5%	1/10W
R209	1-216-073-00	METAL CHIP	10K	5%	1/10W
R210	1-216-073-00	METAL CHIP	10K	5%	1/10W
R211	1-216-073-00	METAL CHIP	10K	5%	1/10W
R212	1-216-073-00	METAL CHIP	10K	5%	1/10W
R213	1-216-073-00	METAL CHIP	10K	5%	1/10W
R214	1-216-073-00	METAL CHIP	10K	5%	1/10W
R215	1-216-073-00	METAL CHIP	10K	5%	1/10W
R216	1-216-073-00	METAL CHIP	10K	5%	1/10W
R217	1-216-073-00	METAL CHIP	10K	5%	1/10W
R218	1-216-073-00	METAL CHIP	10K	5%	1/10W
R219	1-216-073-00	METAL CHIP	10K	5%	1/10W
R220	1-216-073-00	METAL CHIP	10K	5%	1/10W
R221	1-216-073-00	METAL CHIP	10K	5%	1/10W
R222	1-216-073-00	METAL CHIP	10K	5%	1/10W
R223	1-216-073-00	METAL CHIP	10K	5%	1/10W
R224	1-216-073-00	METAL CHIP	10K	5%	1/10W
R225	1-216-073-00	METAL CHIP	10K	5%	1/10W
R226	1-216-073-00	METAL CHIP	10K	5%	1/10W
R227	1-216-073-00	METAL CHIP	10K	5%	1/10W
R228	1-216-073-00	METAL CHIP	10K	5%	1/10W
R229	1-216-073-00	METAL CHIP	10K	5%	1/10W
R230	1-216-073-00	METAL CHIP	10K	5%	1/10W
R231	1-216-073-00	METAL CHIP	10K	5%	1/10W
R232	1-216-073-00	METAL CHIP	10K	5%	1/10W
R233	1-216-073-00	METAL CHIP	10K	5%	1/10W
R234	1-216-073-00	METAL CHIP	10K	5%	1/10W
R235	1-216-073-00	METAL CHIP	10K	5%	1/10W
R236	1-216-073-00	METAL CHIP	10K	5%	1/10W
R237	1-216-073-00	METAL CHIP	10K	5%	1/10W
R238	1-216-073-00	METAL CHIP	10K	5%	1/10W
R239	1-216-073-00	METAL CHIP	10K	5%	1/10W
R240	1-216-073-00	METAL CHIP	10K	5%	1/10W
R241	1-216-073-00	METAL CHIP	10K	5%	1/10W
R242	1-216-073-00	METAL CHIP	10K	5%	1/10W
R243	1-216-295-00	CONDUCTOR, CHIP (2012)			
R271	1-216-025-00	METAL CHIP	100	5%	1/10W
R272	1-216-025-00	METAL CHIP	100	5%	1/10W
R273	1-216-041-00	METAL CHIP	470	5%	1/10W
R274	1-216-049-11	METAL CHIP	1K	5%	1/10W
R302	1-216-025-00	METAL CHIP	100	5%	1/10W
R303	1-216-073-00	METAL CHIP	10K	5%	1/10W
R304	1-216-073-00	METAL CHIP	10K	5%	1/10W
R305	1-216-073-00	METAL CHIP	10K	5%	1/10W
R306	1-216-073-00	METAL CHIP	10K	5%	1/10W
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W
R308	1-216-073-00	METAL CHIP	10K	5%	1/10W
R309	1-216-073-00	METAL CHIP	10K	5%	1/10W
R310	1-216-073-00	METAL CHIP	10K	5%	1/10W
R311	1-216-073-00	METAL CHIP	10K	5%	1/10W
R312	1-216-073-00	METAL CHIP	10K	5%	1/10W
R313	1-216-025-00	METAL CHIP	100	5%	1/10W
R401	1-216-047-00	METAL CHIP	820	5%	1/10W
R402	1-216-025-00	METAL CHIP	100	5%	1/10W
R403	1-216-025-00	METAL CHIP	100	5%	1/10W

VIDEO | VIDEO OUT

Ref. No.	Part No.	Description			Remark
R404	1-216-121-00	METAL CHIP	1M	5%	1/10W
R405	1-216-047-00	METAL CHIP	820	5%	1/10W
R406	1-216-025-00	METAL CHIP	100	5%	1/10W
R407	1-216-025-00	METAL CHIP	100	5%	1/10W
R451	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R452	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R453	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R454	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R455	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R456	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R457	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R458	1-216-295-00	CONDUCTOR, CHIP (2012)			
R459	1-216-295-00	CONDUCTOR, CHIP (2012)			
R460	1-216-295-00	CONDUCTOR, CHIP (2012)			
R461	1-216-295-00	CONDUCTOR, CHIP (2012)			
R462	1-216-295-00	CONDUCTOR, CHIP (2012)			
R463	1-216-295-00	CONDUCTOR, CHIP (2012)			
R464	1-216-097-00	METAL CHIP	100K	5%	1/10W
R465	1-216-097-00	METAL CHIP	100K	5%	1/10W
R466	1-216-097-00	METAL CHIP	100K	5%	1/10W
R467	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R468	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R469	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R470	1-216-049-11	METAL CHIP	1K	5%	1/10W
R471	1-216-049-11	METAL CHIP	1K	5%	1/10W
R501	1-216-009-00	METAL CHIP	22	5%	1/10W
R502	1-216-009-00	METAL CHIP	22	5%	1/10W
R503	1-216-025-00	METAL CHIP	100	5%	1/10W
R504	1-216-025-00	METAL CHIP	100	5%	1/10W
R505	1-216-025-00	METAL CHIP	100	5%	1/10W
R506	1-216-025-00	METAL CHIP	100	5%	1/10W
R507	1-216-037-00	METAL CHIP	330	5%	1/10W
R508	1-216-037-00	METAL CHIP	330	5%	1/10W
R509	1-216-037-00	METAL CHIP	330	5%	1/10W
R510	1-216-047-00	METAL CHIP	820	5%	1/10W
R511	1-216-043-00	METAL CHIP	560	5%	1/10W
R701	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R702	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R704	1-216-073-00	METAL CHIP	10K	5%	1/10W
R705	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R706	1-216-073-00	METAL CHIP	10K	5%	1/10W
R707	1-216-073-00	METAL CHIP	10K	5%	1/10W
R708	1-216-073-00	METAL CHIP	10K	5%	1/10W
R709	1-216-073-00	METAL CHIP	10K	5%	1/10W
R711	1-216-295-00	CONDUCTOR, CHIP (2012)			
R712	1-216-025-00	METAL CHIP	100	5%	1/10W
R713	1-216-025-00	METAL CHIP	100	5%	1/10W
R714	1-216-025-00	METAL CHIP	100	5%	1/10W
R715	1-216-025-00	METAL CHIP	100	5%	1/10W
R716	1-216-025-00	METAL CHIP	100	5%	1/10W
R717	1-216-025-00	METAL CHIP	100	5%	1/10W
R718	1-216-025-00	METAL CHIP	100	5%	1/10W
R719	1-216-025-00	METAL CHIP	100	5%	1/10W
R720	1-216-025-00	METAL CHIP	100	5%	1/10W
R721	1-216-025-00	METAL CHIP	100	5%	1/10W
R722	1-216-081-00	METAL CHIP	22K	5%	1/10W
R723	1-216-025-00	METAL CHIP	100	5%	1/10W
R724	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R725	1-216-073-00	METAL CHIP	10K	5%	1/10W
R726	1-216-073-00	METAL CHIP	10K	5%	1/10W
R727	1-216-073-00	METAL CHIP	10K	5%	1/10W
R728	1-216-073-00	METAL CHIP	10K	5%	1/10W
R902	1-216-295-00	CONDUCTOR, CHIP (2012)			
R903	1-216-025-00	METAL CHIP	100	5%	1/10W
R904	1-216-073-00	METAL CHIP	10K	5%	1/10W
R905	1-216-073-00	METAL CHIP	10K	5%	1/10W
R906	1-216-073-00	METAL CHIP	10K	5%	1/10W
R907	1-216-085-00	METAL CHIP	33K	5%	1/10W
R908	1-216-085-00	METAL CHIP	33K	5%	1/10W
R909	1-216-085-00	METAL CHIP	33K	5%	1/10W
R910	1-216-085-00	METAL CHIP	33K	5%	1/10W
R911	1-216-073-00	METAL CHIP	10K	5%	1/10W
R912	1-216-073-00	METAL CHIP	10K	5%	1/10W
R913	1-216-073-00	METAL CHIP	10K	5%	1/10W
R914	1-216-073-00	METAL CHIP	10K	5%	1/10W
R915	1-216-073-00	METAL CHIP	10K	5%	1/10W
R916	1-216-073-00	METAL CHIP	10K	5%	1/10W
R917	1-216-073-00	METAL CHIP	10K	5%	1/10W
R919	1-216-073-00	METAL CHIP	10K	5%	1/10W
R920	1-216-073-00	METAL CHIP	10K	5%	1/10W
R921	1-216-073-00	METAL CHIP	10K	5%	1/10W

< VIBRATOR >

X101	1-767-518-11	VIBRATOR, CRYSTAL (33MHz)	
X201	1-767-055-11	VIBRATOR, CERAMIC (45MHz)	
X202	1-767-361-11	VIBRATOR, CERAMIC (28.63636MHz)	
X401	1-767-519-11	VIBRATOR, CRYSTAL (27MHz)	
X701	1-767-211-11	VIBRATOR, CERAMIC (10MHz)	
X901	1-767-144-21	VIBRATOR, CERAMIC (5MHz)	

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*	1-665-406-11	VIDEO OUT BOARD	
		**********	

< CAPACITOR >

C9001	1-126-926-11	ELECT	1000uF	20%	10V
C9002	1-126-926-11	ELECT	1000uF	20%	10V
C9003	1-126-925-11	ELECT	470uF	20%	10V
C9007	1-102-972-00	CERAMIC	91PF	5%	50V

< CONNECTOR >

* CN9001	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P	

< COIL >

L9001	1-408-397-00	INDUCTOR	1uH

< PIN JACK/S TERMINAL >

J9001	1-774-227-11	JACK, PIN 1P (VIDEO OUT)
J9002	1-778-773-11	TERMINAL, S (S VIDEO OUT)

< RESISTOR >

R9001	1-249-429-11	CARBON	10K	5%	1/4W
R9002	1-249-429-11	CARBON	10K	5%	1/4W
R9003	1-249-429-11	CARBON	10K	5%	1/4W
R9004	1-249-429-11	CARBON	10K	5%	1/4W
R9005	1-249-433-11	CARBON	22K	5%	1/4W

Ref. No.	Part No.	Description				Remark
		< SWITCH >				
S9001	1-571-589-11	SWITCH, SLIDE (SYSTEM SELECT)				
**********						
*	1-666-126-11	VIDEO POWER BOARD				
		**********				
	7-685-646-79	SCREW +BVTP 3×8 TYPE2 N-S				
		< CAPACITOR >				
C9001	1-126-964-11	ELECT	10uF	20%	50V	
C9002	1-126-933-11	ELECT	100uF	20%	16V	
C9003	1-126-919-11	ELECT	6800uF	20%	6.3V	
C9004	1-126-964-11	ELECT	10uF	20%	50V	
C9005	1-126-933-11	ELECT	100uF	20%	16V	
C9006	1-126-935-11	ELECT	470uF	20%	16V	
		< CONNECTOR >				
CN9001	1-564-506-11	PLUG, CONNECTOR 3P				
* CN9002	1-564-507-11	PLUG, CONNECTOR 4P				
		< IC >				
IC9001	8-759-231-53	IC TA7805S				
IC9002	8-759-231-53	IC TA7805S				
		< TRANSISTOR >				
Q9001	8-729-141-83	TRANSISTOR 2SB1094-LK				
Q9002	8-729-900-36	TRANSISTOR DTC124ES				
Q9003	8-729-141-83	TRANSISTOR 2SB1094-LK				
Q9004	8-729-900-36	TRANSISTOR DTC124ES				
		< RESISTOR >				
R9001	1-249-421-11	CARBON	2.2K	5%	1/4W	
R9002	1-249-413-11	CARBON	470	5%	1/4W	
R9003	1-249-421-11	CARBON	2.2K	5%	1/4W	
R9004	1-249-413-11	CARBON	470	5%	1/4W	
**********						
		MISCELLANEOUS				
		**********				
4	1-233-545-11	ENCAPSULATED COMPONENT (FM/AM TUNER UNIT)				
5	1-769-974-11	WIRE (FLAT TYPE) (13 CORE) (120mm)				
58	1-773-161-11	WIRE (FLAT TYPE) (21 CORE)				
59	1-769-949-11	WIRE (FLAT TYPE) (11 CORE)				
121	1-773-051-11	WIRE (FLAT TYPE) (17 CORE)				
152	1-782-562-11	WIRE (FLAT TYPE) (13 CORE) (500mm)				
157	1-782-563-11	WIRE (FLAT TYPE) (29 CORE)				
⚠159	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)				
⚠159	1-569-008-11	ADAPTOR, CONVERSION 2P (MY, SP)				
⚠160	1-558-943-41	CORD, POWER (IA)				
⚠160	1-575-651-21	CORD, POWER (MY, SP)				
⚠160	1-751-326-21	CORD, POWER (TH)				
⚠160	1-782-510-11	CORD, POWER (CH)				
165	1-500-386-11	FILTER, CLAMP (FERRITE CORE)				
357	1-452-925-11	MAGNET ASSY				
⚠401	8-820-020-01	OPTICAL PICK-UP KSS-213D/Q-NP				
402	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)				
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK) (DECK A)				
HRPE1011	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE) (DECK B)				
M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)				
M2	A-2004-410-A	MOTOR ASSY (TRIGGER)				
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)				
M102	X-4917-504-1	MOTOR ASSY (SLED)				
M201	A-4660-977-A	MOTOR ASSY (TABLE)				
⚠T901	1-431-417-11	TRANSFORMER, POWER (SP, IA, CH)				
⚠T901	1-431-417-21	TRANSFORMER, POWER (MY, TH)				
**********						
		**********				
		HARDWARE LIST				
		**********				
#1	7-685-646-79	SCREW +BVTP 3×8 TYPE2 N-S				
#2	7-685-871-01	SCREW +BVTT 3×6 (S)				
#3	7-685-872-09	SCREW +BVTT 3×8 (S)				
#4	7-685-650-79	SCREW +BVTP 3×16 TYPE2 N-S				
#5	7-685-862-09	SCREW +BVTT 2.6×6 (S)				
#6	7-685-131-19	SCREW +BTP 2.6×4 TYPE2 N-S				
#7	7-685-533-19	SCREW +BTP 2.6×6 TYPE2 N-S				
#8	7-621-775-10	SCREW +B 2.6×4				
#9	7-685-534-19	SCREW +BTP 2.6×8 TYPE2 N-S				
#10	7-623-921-01	RING, RETAINING, CAPSTAN				
#11	7-621-775-00	SCREW +B 2.6×3				
#12	7-621-255-15	SCREW +P 2×3				

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Sony Corporation
Home A&V Products Company

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